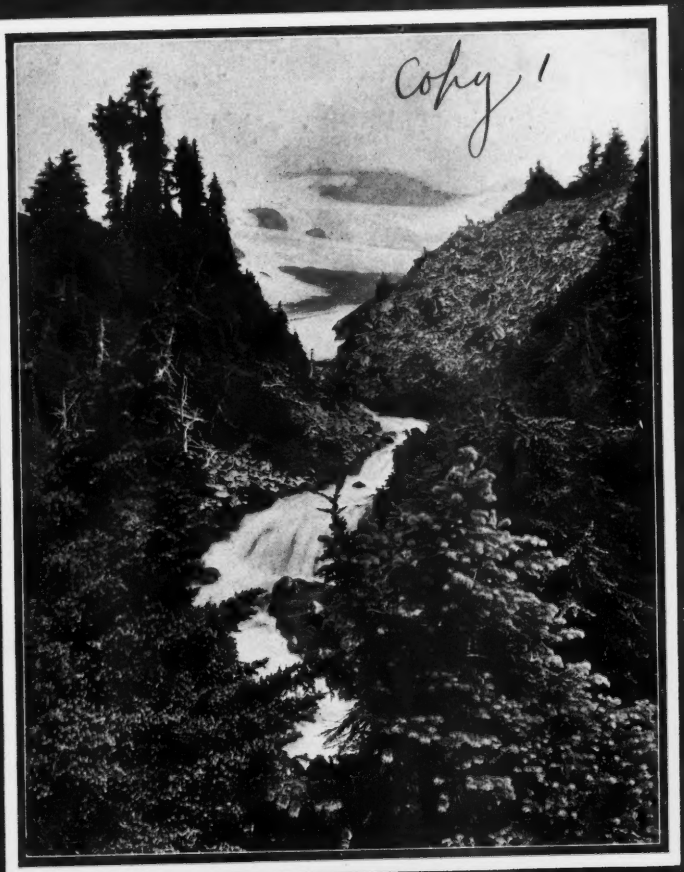
THE DENTAL DIGEST



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In 1825

THE business in Hartford, begun by the founders of THE J. M. NEY COMPANY thirteen years earlier, had made considerable progress.

Virgin gold had been substituted for the Brazilian coins formerly used and was being turned out in the form of pellets, pierced in the center. These pellets were used by the pioneer dentists of America for fillings, additional gold being worked into the hollow centers to produce the bulk required.

The high standard set by the founders has ever been maintained and the Company takes just pride in its slogan, "*Best since 1812.*"

THE
DENTAL DIGEST

Vol. XXX JANUARY, 1924 No. 1

The Relation of the Laboratory to the Dental Profession*

By Samuel G. Supplee, New York, N. Y.

(Editor's Note: This is an excellent paper for dentists who are mentally big enough to accept suggestion and instruction, even if it is not particularly flattering to their pride. This magazine is glad to publish it because it deals constructively with a condition prevalent in the profession and detrimental to its interests.

The author is right when he says that the illustrations are from average rather than from extreme cases. Anyone can see much worse specimens in almost any large dental laboratory almost any day.

God help us if we are ever judged as to our professional standing by even the average of the impressions, casts and directions we send to industrial dental laboratories.)

In presenting a subject of this kind, a brief history of the modern dental laboratory might be appropriate, but should I attempt to write it in detail I would consume valuable time that might be spent to better advantage in a constructive presentation of conditions as they are today. The laboratory is becoming more of a necessity to the dental profession every year. As an industry, it is very young and needs to be developed by those who are competent and who hope to benefit by it.

The dental laboratory may be divided into two distinct organizations, the private dental laboratory and the industrial dental laboratory (commonly known as the commercial laboratory). The private dental laboratory indicates the laboratory maintained by the dentist with a large practice for his personal convenience and has come to be most valuable to the dentist who specializes in one or more branches. The industrial dental laboratory has taken its place as an absolute necessity to certain dentists because it offers the services of men in whom special skill has been developed as the result of long concentration upon a relatively narrow field of work. It is to this branch of dental service that I wish to direct your attention because its usefulness to the dental profession can be greatly increased if a better

*Read before the National Society of Denture Prosthetists at Milwaukee, 1921.

understanding is established between it as an organization and the various dental organizations.

Advantages of Laboratory Service

It holds always ready for the dentist's service a staff of experts whom he could not hope to employ for his work alone.

It enables dentists to avail themselves of this service and thereby to hire for themselves smaller office space, to employ fewer people and to carry smaller investment in equipment, supplies and overhead expense than would otherwise be necessary.

It broadens the field and enables dentists who would otherwise do their own laboratory work, perhaps in the evening, to avoid the long hours of overwork and to employ their income hours in profitable forms of service which none but themselves can render.

Under conditions of ideal co-operation between the dentist and the laboratory there is no doubt but that the laboratory can render a highly satisfactory form of service at less cost than the dentist would be compelled to pay if he did his own work or employed a suitable laboratory assistant. The situation is far from ideal at present and it will be necessary for us to face conditions as they are in order to establish a better understanding.

The laboratory cannot rise higher in the scale of achievement than the dental profession makes possible by its interest, co-operation and example. Lacking these essentials from the profession, the laboratory will fail to render valuable service. There may be laboratories unwilling to rise to their opportunity, but there are in nearly every community laboratories eager and anxious to develop their service to the highest possible degree.

Origin of the Industrial Dental Laboratory

The industrial dental laboratory probably owes its origin, at least in part, to the fact that a few years ago many dentists were either unwilling or unable to do their own laboratory work and many of the colleges gave to their students little or no technical information or practical experience in prosthetic work and laboratory technic. Each year has seen more and more dentists undertaking the construction of prosthetic restorations without understanding either the principles or the practice of many of the essential steps. Graduate dentists can get the necessary instruction only through post-graduate courses or by individual study and co-operation with an up-to-date laboratory.

It is natural that the business held in such low esteem by those whom it served should have attracted to it, at first, many whose thought was chiefly upon the money to be earned and only a few men with

vision as to its possibilities and with the ambition to undertake the long and arduous task of developing them.

For many years the average quality of laboratory service reflected the standing of prosthetic work in professional esteem and skill, which means that it was very poor and that there was no incentive for improvement. The recent awakening of the dental profession to the necessity for better prosthetic technic and the improvement in that technic have been reflected in the service of some laboratories and will be reflected in the service of many more as soon as the profession not only insists upon such improvement but takes the steps which make it possible.

The Aspirations of Laboratory Men

The personnel of men engaged in the laboratory business has steadily improved; and the desire to render a high type of service has grown until it has resulted in the formation of a National Association of Laboratory Men who have the following objects in mind:

"To promote and advance the science and art of dental prosthesis as a specialty of dentistry, to co-operate with the dental profession and to provide for the dissemination through the dental laboratories of knowledge concerning this subject, and to encourage the study of the various phases of this specialty."

These thoughts have been in the minds of the better laboratory men all over the United States, but probably would not have taken form as yet had they not been encouraged by our esteemed ex-president, Dr. M. M. House, and Dr. W. A. Giffen, Dr. Forrest H. Orton, Dr. P. C. Lowery and Dr. Victor H. Sears, as well as other members of this organization.

The first meeting of this Association was held in Boston in 1920; a second meeting was held in Chicago in January, 1921; and it is the intention to meet again at the Republican Hotel in this city. There will be representatives from the East and West, and it is hoped to lay the foundation of an organization worthy of recognition by this Society.

The Laboratory Association has much to do within its own field in creating sufficient harmony so that its members may get together, exchange ideas and understand one another better and encourage the weaker laboratories to establish higher standards. Up to within a few years most laboratory men avoided association with one another and looked upon one another with fear and suspicion. They were willing to co-operate with the dentists only. War conditions have in a large measure changed all of this and laboratory men in every section of the country have formed local societies and clubs and have learned to know one another better. The better ones have found that, as in the dental profession, it is much better for everyone to exchange ideas

and advanced steps in technic. The different local organizations have varied considerably in their aims and ambitions; some have been formed to exchange ideas and to meet existing conditions, while others have had educational aspirations.

The effort of the labor organization to establish the closed shop and classify dental mechanics in Boston, New York, Philadelphia, St. Louis and Chicago called for concerted action on the part of various local laboratory organizations. This movement was aimed not only at the industrial dental laboratories but at the private laboratories of dentists; yet it was up to the industrial dental laboratories to look out for the interests of the dentists as well as their own.

During the past winter a movement was started by a number of individual mechanics to unite the employees, as well as the laboratory owners of New York, New Jersey and Pennsylvania, in an effort to license dental mechanics. The thought was to ignore the dental profession entirely. They endeavored to promote the idea without disclosing the exact copy of the proposed law. It soon became clear to the officers and members of both the New Jersey Dental Laboratory Association and the New York Dental Laboratory Club that the law was only a subterfuge to permit dental mechanics to take impressions in the mouth and to raise the pay of individual mechanics. These two organizations, whose aim it is to cooperate with the dental profession, immediately joined hands and within a few months' time forced the leaders to abandon their plans.

In the effort to ensnare many of the better-thinking laboratory men in their movement, quite a number of mass meetings were held and many elegant phrases were employed to show the laboratory men the position which they should assume and which they could hope to attain only if they rose up in a body and took it.

The abandonment of the one movement in New Jersey resulted in the birth of a new one which is still in existence in New York State with headquarters in New York City, promoted by the former leaders of the Dental Mechanics' Union. They are endeavoring to raise money which they claim is to be used to secure legislation to license dental mechanics and provide means of educating them entirely independent of the dental profession. Time will tell if there is any other object behind the movement.

The better laboratory men throughout the country seem to feel that there is more need for the laboratories to be licensed and controlled than for the mechanics, but if a law for the licensing of either laboratories or mechanics is to become effective, it should come only through a combined effort of the laboratories and dental profession through their various organizations.

The events of the past few years only go to show that the dental profession must become more familiar with the thoughts and requirements of the men to whom it must look for assistance, whether they be mechanics in private laboratories or the owners of industrial laboratories. If a hand is held out to worthy ones at the present time, much can be accomplished for the betterment of dentistry in a very short time that will otherwise take years.

One of the causes for the present movement among laboratory men is the fact that they observe the lack of attention to detail on the part of many dentists when sending work to the laboratory or how much the dentists demand of the laboratory without giving a fair chance. They treat the laboratory man as an inferior, yet they expect of him a greater degree of skill and ability than they themselves possess. Broad-minded laboratory owners realize that this is not always intentional on the part of the dentists, but because they have never been placed in the laboratory man's position they do not fully understand what he has to contend with. There is no doubt in my mind that a competent laboratory manager or owner should know as much if not more than the dentist about his particular part of the work, in order to interpret instructions properly or to construct dentures. This should be officially recognized by the dental profession. Laboratory men all agree that they have little or no difficulty in producing the best results for those dentists who for a time have worked for other dentists without seeing the patient.

Let me make it clear to you that there is a vast difference between what you require if you do your own work and what should be given to the man who does not see the mouth. If you are going to construct your own appliances, large impressions and impressions of all the occluding teeth are not always necessary, because you are able to visualize what you saw in the mouth and possibly arrange the teeth accurately and design dentures on very small casts; but it is almost impossible to convey this in verbal or written instructions. Expressions such as "Set them a trifle longer," "A trifle shorter," or "Use a larger tooth," etc., are all relative and demand guesswork on the part of the laboratory man; yet they are expressions that are used by most dentists when sending work to the laboratory today. It is important that there be a clear understanding between the laboratory and the dentist regarding terms with a definite meaning, the quality of service desired and the cost of that service to the laboratory.

There is nothing I value more highly than the honor that has been bestowed upon me of becoming a member of this Society and of associating with those who I believe have been the greatest factors in the world in elevating prosthetic dentistry to the high plane which it now

occupies. And it is because I believe that the more you know about conditions as they exist in the dental laboratory and the present relations between the dentist and the laboratory, the more you can help to elevate it to a plane upon which it will be of greater service to the dental profession.

The Dentist's Part in Cooperation

With this thought in mind I am going to bring to your attention a few conditions related to cooperation between dentist and laboratory from the laboratory man's viewpoint.

Let me deal first with the very important matter of impressions and registering mandibular relations. From the laboratory man's point of view it seems probable that not more than 20% of dentists in the United States today take sufficiently accurate impressions and establish proper enough mandibular relations of Class 1 mouths so that dentures can be made over the casts which will be pleasing in appearance, stable in all positions of the mandible and fairly efficient in mastication. Impressions and bites of Class 1 mouths are the easiest of all impressions and bites to take and may be taken in almost any impression material. Class 1 and Class 2 mouths probably constitute 75% of all edentulous mouths. It seems as if less than 10% of dentists can take fairly accurate impressions of mouths in Class 3 and Class 4 from which efficient dentures can be constructed.

Laboratory experience seems to show that a large percentage of all the dentists who take accurate impressions and bites, and who would habitually do so if they were doing their own laboratory work, are so lulled to sleep by the quality of service received from laboratories to which they send such impressions and bites that they gradually become less and less particular in the taking of impressions, the making of casts, the registering of mandibular relations and the making out of directions for the laboratory. Many of them soon reach the stage to which they would not permit themselves to fall if they were doing their own laboratory work. This works a hardship on the laboratory that is very difficult for it to overcome, because it means a continual supervision of impressions, bites, etc., that requires imagination, or at least good guessing, since it is impossible to criticize accurately without seeing the mouth.

A great majority of dentists send only small impressions of less than one-half the arch and a so-called bite, in a large piece of wax, and expect the laboratory to supply from one to five teeth in the form of a bridge or plate and then criticize most severely if the laboratory does not guess rightly. For guessing it must be if you just stop to realize that individual laterals, cuspids, bicuspids and molars must be

ground and set to harmonize with the teeth on the opposite side of the mouth to produce the best results. Unless all the corresponding teeth are clearly defined it is nothing but pure guesswork.

It is exceedingly difficult for a dentist or laboratory man to transfer a "mash bite" from the mouth to the cast without distorting the true conditions, yet how many of our so-called best men in the profession send just such requirements every day to their laboratories, whether private or industrial, and expect the best results! Probably the laboratory man is at fault for accepting them, but he has not been in a position where he could dictate, because the patient is not present and he must do the best he can with what is given.

Dentists have been able to make transfers that were satisfactory with bulk wax bites and have not been made to understand that they have a distinct advantage in having seen the mouth and can depend a great deal upon memory of the true conditions. They do not realize that they must give the laboratory man more specific data and data of a kind different from that required were they doing the work themselves. A separate full impression of the antagonizing jaw and a very small wax registration of central occlusion are absolutely necessary for an accurate transfer of conditions to one who has not seen the mouth.

There is also the other viewpoint that is important to consider. The dental mechanic or laboratory owner has not always been taught to appreciate minute details and finds himself in a position where he is obliged to accept from the dental profession all kinds of imperfect impressions that he thinks are not correct without being able to prove his assertion, but which the dentist *insists upon the mechanic using* with the assurance that they will be satisfactory. This mechanic soon finds himself in a position where he is willing to take a chance and use his own judgment in scraping a model, carving up a defective tooth or doing the best he can with what is presented to him. In this way many of the better dental mechanics soon lose their sense of what is right or wrong and through sheer necessity and humility, owing to their humble position as being looked upon as servants to the dentist, soon become as deficient as their preceptors.

Now, consider how essential to the worker, who does not see the patient, are complete and intelligible directions such as you would need under like conditions. Apparently less than 50% of dentists send sufficiently explicit directions with their casts or bites so that the laboratory man knows exactly what is desired. In about half of all the cases sent by a dentist to his local laboratory he sends the cast or impression in small pieces and then calls the laboratory on the telephone and gives verbal instructions as to what is desired. In laboratories employing but one man for all the work, that man may have a clear idea of what is to be done, when called on the telephone in this way, but

in large laboratories where the work passes through many hands the construction of the work is likely to be unsatisfactory. Most modern laboratories have specially prepared order blanks which can be filled out in a simple and complete manner, which, as a rule, are more satisfactory than some telephone calls and many voluminous letters. Experience with dentists shows that the expression "one-eighth of an inch," often used in giving directions, may cover any distance from something less than a millimeter to more than a quarter of an inch, depending upon the dentist's sense of distance.

It takes an exceptionally strong man morally to stand up under the pressure, and if more of our educators and members of the dental profession would get inside of industrial laboratories and see conditions as most laboratories are obliged to face them, I am sure they would not expect so much of the laboratory man without giving him more of an opportunity to bring his problems before the profession at large and defend his position without being obliged to do it in the form of advertising.

What saves the day under the present conditions and makes it possible for the dentist to render to his patients fairly satisfactory service? The situation is saved by the fact that as the result of long experience the laboratory man has learned to be a good guesser. By guesswork he is able to trim models, to establish mandibular relations, to select and arrange teeth, and to do many other things which should be done only as the result of exact knowledge. Those of us who have spent years in trying to develop the laboratory to the greatest degree of service desire to reduce this guesswork to a minimum. The better laboratory men are trying to overcome these conditions and have made much progress during the past few years.

(To be continued)

A Simple and Efficient Pyorrhea Treatment

By Will S. Kelly, D.D.S., Wilkes-Barre, Pa.

I have been using for some time a treatment for advanced pyorrhea cases which is proving very effective where there is one-third or more of the tooth socket left. I should not apply it in cases where there is no tooth socket remaining.

On the first visit I endeavor to clean thoroughly all surfaces of the teeth above the alveolar border. This border is then thoroughly and freely curetted, bleeding profusely. Then the "pockets" should be well rinsed with warm water through the agency of an ordinary pressure syringe. The area is then dried as well as possible with bibulous paper, which absorbs moisture more readily than absorbent cotton, and a generous application of equal parts of tincture of iodine and glycerine (mixed) follows. The area is then allowed to stand for perhaps ten minutes, when the mouth should again be rinsed and dried as well as possible, immediately preceding an application of Monsell's solution of iron introduced clear to the socket border with an orangewood stick sharpened wedge-shaped. This application should be copiously and firmly introduced; then it should be allowed to remain.

On the second visit the teeth are carefully examined to see whether any deposits escaped removal. Should any pockets still show a discharge (and some no doubt will), do a little more curetting at those points and proceed first with the iodine and glycerine and then with the Monsell's solution, as at the first visit. At this visit the gums almost invariably show marked improvement.

The same treatment is applied on the third visit. So far, no case has required more than five visits. Some of the cases have been well advanced.

A number of these cases have been seen several months after the treatment, and the teeth are firm in position and the gums in excellent condition.

I may add that after the final treatment the teeth should be polished, as the Monsell's solution leaves a brown stain which can readily be removed.

The above treatment works like magic on Trench Mouth or Stomatitis, and has cured a number of very bad cases in two treatments.

Simon Long Building.

Accidents and Infections Following Novocain Anesthesia, With Particular Reference to the Mandibular Injection

By Leo Winter, D.D.S., New York City

Clinical Professor of Oral Surgery and Diseases of the Mouth, New York College of Dentistry; Oral Surgeon, Flower Hospital; Visiting Dentist, Harlem Hospital (Bellevue and Allied Hospitals); Visiting Dentist, New York Foundling Hospital.

(*Continued from December*)

Accidents following mandibular anesthesia with novocain may be divided into three groups:

1. Injection of alcohol into the tissues.
2. Injury to the lingual nerve.
3. Breakage of needles.

The injection of alcohol in small quantities may give rise to a prolonged anesthesia, while the introduction of even a half centimeter may produce sloughing. Syringes which are suspended in a solution of two parts alcohol and one part chemically pure glycerine, when not in use, should be thoroughly cleansed with warm sterile water before being used.

The question of the injury to the lingual nerve has been taken up previously.

The accident of the breaking of a needle may occur even to the most experienced practitioner. However, my statistics seem to show that the great majority of these accidents occur in the hands of young practitioners. The usual causative factor of this accident, as set forth by the operator, is that the patient moved. While the reason assigned is undoubtedly true, we should not lose sight of the fact that the patient is not a dentist or a physician and therefore he sits there in apprehension, for he cannot conceive how the insertion of a long needle of that type will not cause excruciating pain or injury. Especially is this true if the operator explains to the patient that he is not going to inject around the tooth but reach a nerve away in the interior. To expect a patient to sit quietly under those circumstances would be analogous to the condition described by Dr. George W. Crile:

"If one were placed against a wall and were looking into the gun muzzles of a squad of soldiers, and were told that there were nine chances out of ten that he would not be killed outright when the volley was fired, would it help him to be told that he must not be afraid? Such an experience would be written indelibly on his brain. This corresponds closely to the position in which some surgical patients are placed."

Causes of Accidents

1. Lack of intimate knowledge of the structures.
2. Improper technic in making injections.

It is important to keep in mind that there are many and varied differentiations in the anatomical structures of human beings. The internal oblique line may be very prominent in one mandible and very indistinct in another.

When the operator strikes the internal oblique ridge in making the injection, he should withdraw his syringe slightly and with his index finger push the needle alongside the bone and not try to force it through. Whenever he meets an obstruction he should stop and withdraw and not endeavor to force the needle through.

The use of a steel needle, 23-gauge, will greatly minimize the

Figure 18. 21-gauge steel needle broken during mandibular injection. A needle of this gauge is the thickest made for use in this injection.

danger of accidents but will not eliminate breakage. Figure 18 shows heavy steel needle, 21-gauge, broken during mandibular injection. Platinum needles, when straightened after having been bent considerably, will be very weak at that particular point and break easily. Safety guards on needles are but very little protection, for there is no guarantee on just which side of the guard the needle will break.

A good precaution to take is to use a 23-gauge steel needle and not insert it into the tissues to the hub. To be certain, then, that the point of the needle passes over the lingula, that sharp prominence which guards the orifice of the inferior dental canal, the writer recommends a needle slightly longer than 42 mm.

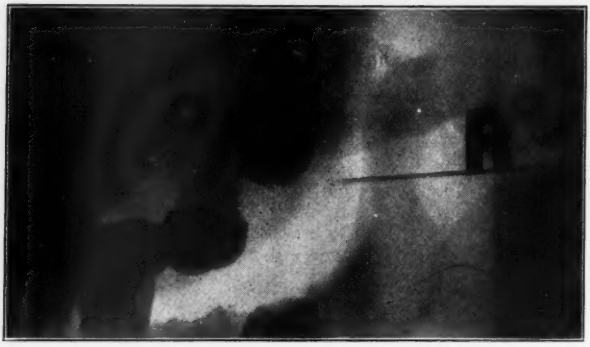


Fig. 19

Figures 19 and 20. Needle broken off in unusually high position, through the sigmoid notch. In endeavoring to remove a needle in this position care should be taken to have incision sufficiently high.

Technic for Removing Broken Needles in Inner Border of Ramus

Two radiographs, an anteroposterior plate and a lateral plate, should be taken in all cases. This procedure, I believe, was first advocated by Dr. Theodore Blum. The anteroposterior plate will show the relative position of the needle to the inner border of the ramus. The lateral plate will show just how far anteriorly the posterior point of the needle may be or how high or low it is situated. Figures 19 and 20 show a needle across the sigmoid notch. Figures 21, 22 and 23 show the normal position.

1. Seat patient in same position as you would for a mandibular

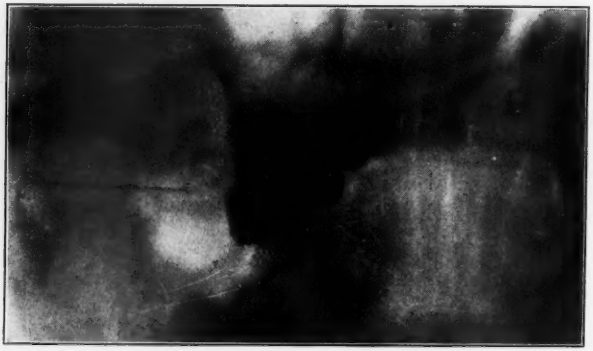


Fig. 20

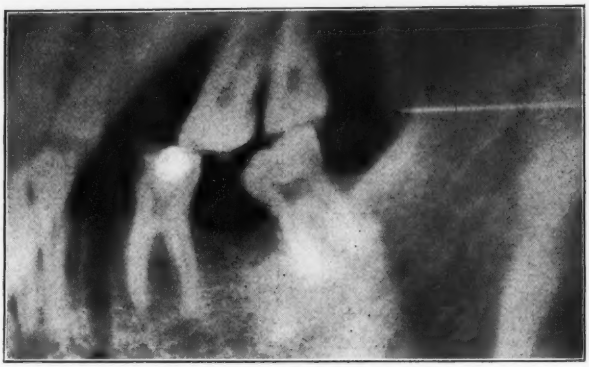


Fig. 21

Figures 21, 22, 23. Needles broken in normal position.

Fig. 22

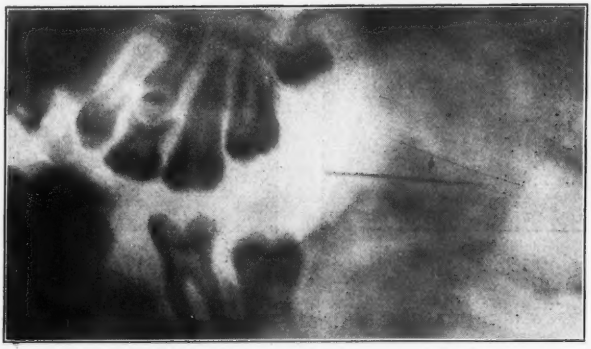


Fig. 23

Fig. 24

Fig. 25

Figure 24. Vertical incision through mucous membrane and buccopharyngeal fascia slightly posterior to the internal oblique ridge.

Figure 25. Superior constrictor muscle of the pharynx, after the retraction of the mucous membrane and buccopharyngeal fascia.

injection, having the head in an almost vertical position, with the mouth open to the full extent.

2. Anesthetize the area locally with novocain.
3. Use headlight.
4. Palpate for internal oblique ridge.
5. Make incision at right angles to needle, slightly posterior to

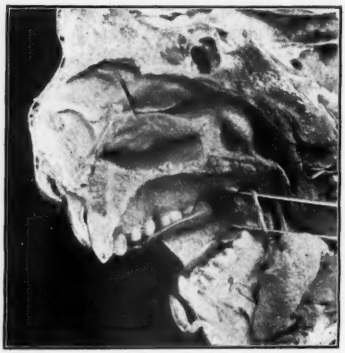


Fig. 26

Fig. 27

Figure 26. Lingual nerve, reached by means of hooked instrument passed through incision to inferior border of angle of mandible.

Figure 27. Internal pterygoid muscle. This muscle should not be cut. It may be raised and held to one side by means of a periosteal elevator.

the internal oblique ridge, cutting through mucous membrane and buccopharyngeal fascia (Figure 24), and with tissue retractors spread the lips on either side of the incision.

6. Cut through superior constrictor of pharynx. The fibres of the superior constrictor run in a horizontal plane. We must, however, violate a surgical principle here in order to attain our goal. (Figure 25.)

7. If the needle has not been reached up to this time, place a hooked instrument in the wound and pass down to the inner border of the angle of the jaw and lift up the lingual nerve, holding it aside with the retractor to prevent its injury. (Figure 26.)

8. Lift up the internal pterygoid muscle; do not cut it. (Figure 27.)

9. Remove fascia carefully and you will strike needle, for you

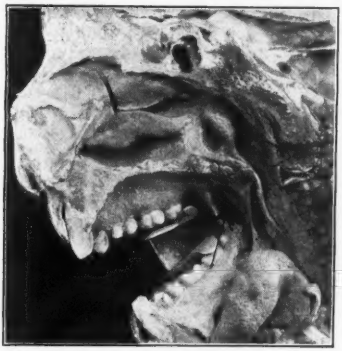


Figure 28. Inner surface of ramus of mandible covered with periosteum.

are now in contact with the periosteum of the inner border of the ramus. (Figure 28.)

The above is a description of the structures on the inner border of the ramus and which will have to be penetrated before the needle can be removed, provided the injection was properly made and the needle lies along the periosteum of the bone. In cases where the needle extends beyond the anterior border of the ramus, as is illustrated in Figures 29 and 30, an incision directly posterior to the third molar in the region of the retromolar triangle would be the best means of reaching the needle.

I believe that in every scientific paper there should be a full and candid presentation of our varied experiences—our mistakes and failures no less than our successes. This makes possible intelligent comparison, stimulates suggestion and leads to discussion out of which each of us may gather something of profit.

Fig. 29

Figures 29 and 30. Illustrating case in which an incision through mucous membrane, directly posterior to the third molar in the region of the retromolar triangle, would be the best means of reaching the needle.

Fig. 30

Out of a total of 52 broken needle cases referred to, 49 were operated on successfully. In each of the three failures the cause may be directly attributed to the effort to relieve the responsibility of the dentist and endeavor to remove the needle when there was trismus and edema to contend with. When a needle is to be removed, it should be removed immediately after the break or not until the trismus has disappeared, so that you can operate without the serious drawback of the trauma. If you feel that the needle should be removed immediately and there is trismus present, then the operation should be performed under a general anesthetic.

140 West 58th Street.

Degenerative Changes in the Face Following Loss of Teeth. Restoration with Artificial Dentures*

By George Wood Clapp, D.D.S., New York, N. Y.

The degenerative changes throughout the body which follow the loss of all the teeth or their improper replacement are such as to interest persons who desire to maintain the appearance of health and vigor and to arouse them to a new understanding of the importance of earnest efforts to secure satisfactory dentures.

What are these changes? The more readily visible changes are in the proportions of the face, the size and form of the muscles of expression and mastication, and in the premature appearance of those changes in expression which are characteristic of old age and waning vigor.

Perhaps the next most important series of changes occurs in the two joints through which the lower jaw is attached to the bones of the skull. If either the front or back teeth are missing for several years, important changes may take place here. If artificial dentures are constructed with care and skill, these changes may be arrested or corrected. Otherwise, they will be progressive.

If the face is allowed to shorten very much through loss or displacement or wear of the teeth, degenerative changes may take place in the tongue and tissues of the throat.

In other cases, the changes resulting from facial shortening may be a contributing cause of deafness. Several cases of improvement in hearing resulting from the restoration of the proper proportions of the face have been reported.

If no teeth are present or the dentures are made with improperly shaped teeth or insufficient time and skill have been applied to the dentures to secure proper articulation, it will be impossible for the patient to masticate starchy foods thoroughly. Degenerative changes of the greatest importance to the health of the individual are then likely to occur. Such changes probably shorten more lives than any other single cause. If every person of middle age knew how much an improper or insufficiently masticated diet hastens decrepitude, there would be no uncared for teeth.

*This is the third of a series of articles dealing with certain phases of the changes which occur in the jaws and face following the loss of the teeth. Dentists are finding the preceding articles useful, as reprints, for the education of edentulous patients.

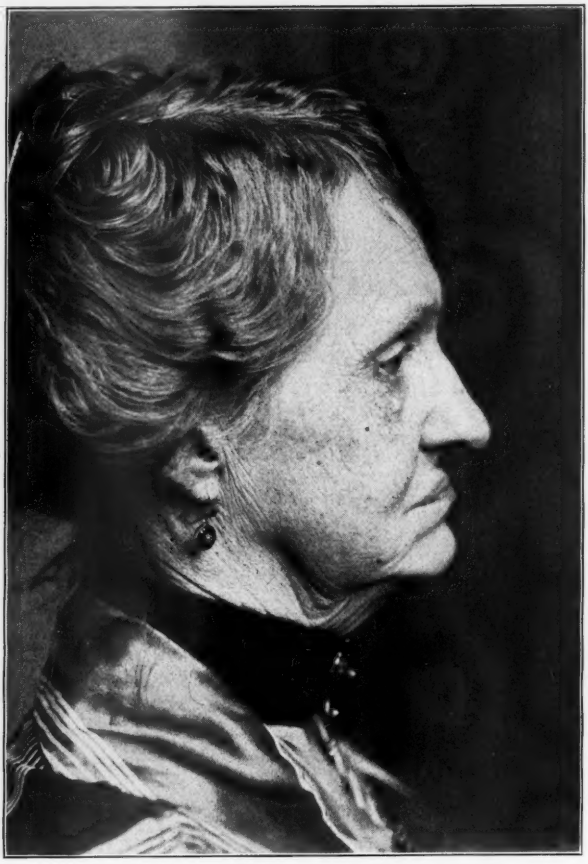


FIG. 1

Teeth Gone, Face Shortening

Following the loss of all the natural teeth the lower jaw has moved too far upward. The masticating power is lost. The condyles may be thrown back into the passages leading to the ears. The mouth cannot drain properly. Unless the proper proportions are promptly restored in the face, the lips will shorten and thicken and some deep wrinkles, with hundreds of little ones, will form in the cheeks.

FIG. 2

Facial Proportions Restored by Dentures

Such dentures as this lady is now wearing restore the powers of mastication and clear speech and permit saliva to drain properly from the mouth. The lips will not shorten or thicken. The condyles will not intrude upon the passages to the ears. The deep wrinkles and the tiny ones will have no chance to form. This lady will "age" much less rapidly than she would otherwise.

FIG. 3

Confidence and Pleasure From Appearing Well

It's a comfort and a pleasure to have people notice what fine teeth you have. Improved artificial teeth are so natural in form and color that in many cases observers think the dentures are natural. Persons who are going to have artificial dentures often go to the dentist and have an impression of the natural teeth taken, before extraction, so that the dentist can reproduce the form, size and arrangement in the artificial dentures.

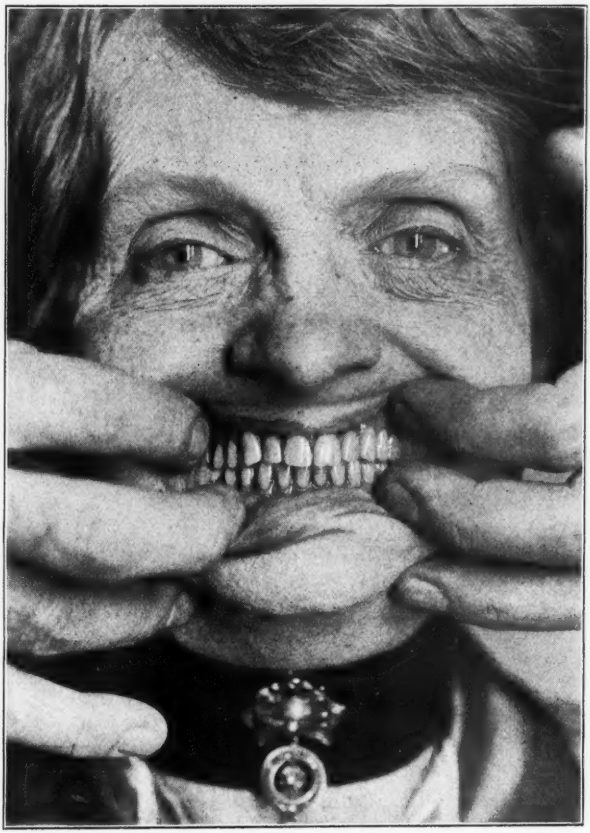


FIG. 4

Care and Skill Essential to Success

The manner in which the artificial dentures occlude is very important. If they come together properly, they will stay in place and be comfortable.

Sometimes patients have one big jaw and one little one, or the lower jaw is too far forward or too far back or a little to one side of center. Such conditions call for great skill on the part of the dentist and sometimes much patience by the wearer.

FIG. 5

Masticating Efficiency of Great Importance

During recent years the forms of artificial teeth have been greatly improved, not only as regards appearance but also in masticating efficiency. Teeth that "go together" as well as those shown in the picture are likely to masticate well. It is greatly to the interest of the patient to permit the dentist to employ the most efficient forms in artificial teeth.

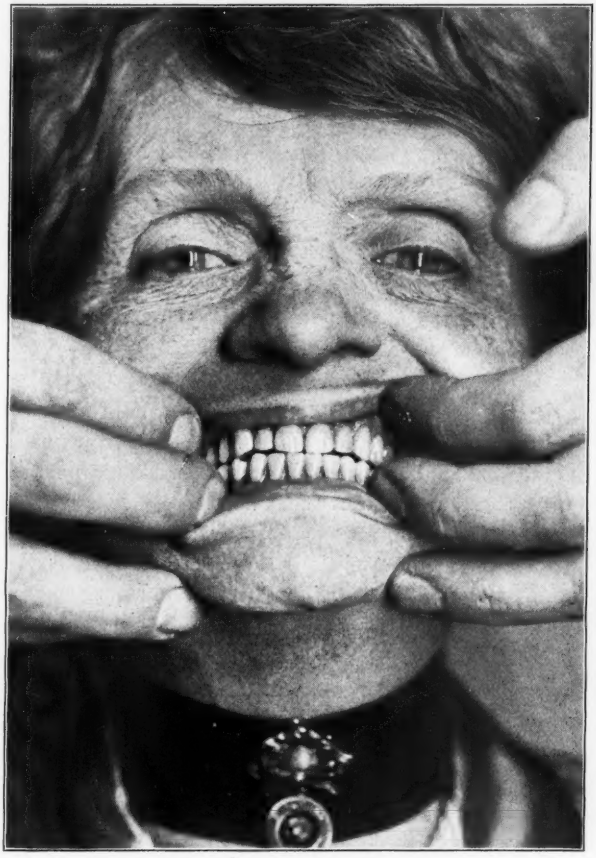


FIG. 6

A Very Important Detail in Tooth Arrangement

In this picture the lower jaw is thrust forward as in biting off food. The important thing to notice is that when the edges of the upper and lower front teeth touch, the tips of the back teeth also touch. This keeps the dentures in position during the act of biting. Much skill on the part of the dentist and correctly formed teeth are necessary to permit this relation of the upper and lower dentures.

Actually Repairing the Damage

Many, if not all, of these changes can be prevented by the use of dentures made in the right way and with the right kind of teeth. The importance of preventing such changes is so great that it should arouse active interest and cooperation on the part of the person for whom the dentures are to be made.

In some cases where the damage already done is not too great and the proper kind and degree of cooperation between patient and dentist can be established, it is possible to do more than merely arrest the degenerative changes. Sometimes the patient can be greatly helped toward a return to the conditions which existed before the beginning of the more serious changes. This is actually "turning back the hands of the clock."

Such rejuvenation may require the construction of a series of dentures. Each pair of dentures is expected to carry rejuvenation to a certain point. The relations established by each pair must be maintained until the appropriate tissue changes are effected by nature. Further progress can then be had only by another pair of dentures which use the new tissue conditions as a starting point and establish other conditions a step further toward normality. Sometimes surprisingly favorable results have been obtained.

This method of treatment is similar to that employed by surgeons in the treatment of certain deformities. It makes serious demands upon patient and dentist, but there are many persons who believe the results have amply paid for the trouble.

It is necessarily expensive, because each set of dentures demands a high order of skill, extensive knowledge, minute attention to detail and much time. Patients should bear in mind, when considering the expense, that the dentist is in no way to blame for the conditions for which relief is sought. Nor is the dentist in position to make "a quantity price" on a series of dentures which would be less than the usual price, because each new set of conditions will demand just as detailed treatment as if it were the only group of conditions ever to be treated.

Patients who need such treatment should undertake it only when the financial arrangements are such as to permit the dentist to exert the utmost skill at his command.

For patients who will enter upon the construction and wearing of artificial dentures in this spirit the results are frequently better health, more comfort, younger and more vigorous appearance, greater efficiency and longer life, in a greater degree than would otherwise be possible.

Dirge for My Departed Teeth

(By a Patient)

Dear emblems of departed youth,
That erstwhile I enjoyed,
Wrenched from me ruthlessly, in truth
You leave an *aching* void.

At home I miss you, and abroad,
My smiling days are o'er,
But chiefly at the festive board
Your absence I deplore.

Faithful for more than forty years,
Biting, at times, it's true,
But oftener seen in smiles than tears,
Oh how I mourn for you!

In broken accents I bewail
The theft of fickle fate,
And vainly try to lisp the tale
I can't enunciate.

But Time heals every wound, they say,
In body, soul, or gum,
And experts guarantee a way
To *bridge* this vacuum.

So when each pearly substitute
Is firmly fastened in,
The mocking world I may refute
Once more with cheerful grin.

Construction of Peeso Telescope Crown and Split-Pin and Tube Used in Removable Bridgework*

By Anastasis G. Augustin, D.M.D., New York City

Removable bridges may be kept sanitary and may be much more easily repaired than fixed bridges. Extensive repairs or alterations are not possible on the fixed bridges.

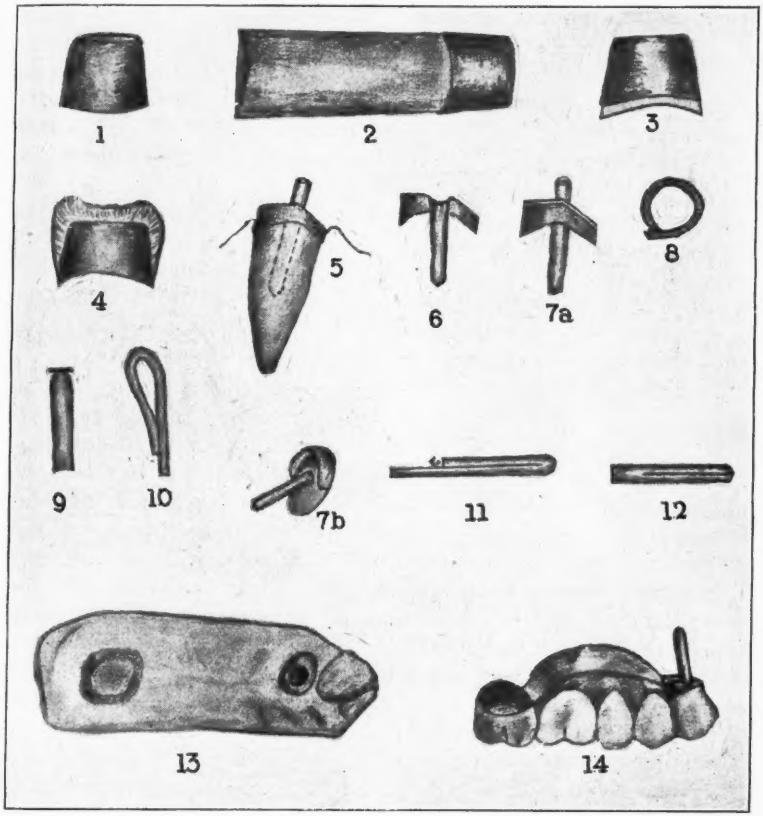
To insure a successfully completed removable bridge, it should be accurately and carefully constructed and the abutments should be made parallel.

The Telescope Crown is a crown one part of which telescopes and slides in the other. It is adapted for the posteriors because on these teeth great strength is needed, and there is no objection to the display of gold as in the anteriors. Coin gold (21.6 K.) is preferable to the ordinary gold plate, as it is very much stronger.

The tooth preparation for this crown is similar to the one in the shell or cast crown; it is slightly tapering, widest at the gum margin. The occlusal allowance for the metal in the construction of this crown, however, necessitates the cutting of the tooth at the occlusal slightly more than in the ordinary crown. The wire measurement and the designing of the band, etc., have been described under the chapter on Cast Crown. The metal plate should be of 30-gauge coin gold for the construction of the band. File at one end and lap over this the other end and sweat together; and shape this band to fit the tooth desired to be crowned. Trim the band following the gum line, having it smooth to prevent undue irritation or cutting of the gum. Have the band about 1/16 inch below the gum. When the band has been fitted properly commence to grind at its occlusal, bringing band even with the tooth. Bevel the occlusal edges of band inward with pliers, giving rounded form to assist the finished bridge to slide in place easily. File the occlusal of the band flat and to this sweat a 28-gauge coin gold top. Figure 1 shows the band and top sweated and edges trimmed, smoothed and polished.

Now wax the inside of this band and cap and make a paper tube around it to be held in position by wiring. Fill this tube with a metal having a low fusing point, practically melting at the boiling pont of water. When cold, remove the paper, as in Figure 2, ready to construct the outer crown on this. When the crown has been completed by immersing the inner band in boiling water the metal will free itself.

To construct the outer crown, take wire measurements of the inner band at its widest and narrowest points and construct a band of 30-gauge coin gold and fit it to the inner cap. Now anneal the outer band and drive the inner cap into it with a hammer. Always before annealing or swaging sink gold in acid, to remove any impurity on it. After swaging the outer band will fit very snug; to remove it from the



inner cap, burnish the outer band; this will stretch, permitting it to slip off easily.

This outer band should be trimmed to the outline of the gum, and about 1/16 inch above the inner cap. File the occlusal of the outer band even with the inner cap, and sweat a top to this band of 30-gauge coin gold. Sweating should be preferred, to prevent solder making its way into the band. To secure natural form of the crown, wings are

constructed and contoured with pliers and soldered with 21-K. solder, and the space between the wings and the band filled with solder and cusps carved, swaged and soldered to this, or the outer cap carved with inlay wax, restoring contour and cusps, invested and cast in 20-K. gold as in the cast crown. Sometimes combination of these two will give satisfactory results. Fig. 4 is the cross section of the outer crown complete. The carving of the cusps and the restoration of the contour should be done on the articulator.

Split-Pin and Tube Attachments are designed for the anteriors to prevent the display of gold. The root preparation is the same as in the Richmond crown, described previously under that chapter. Now make a 30-gauge coin gold band and sweat a 28-gauge top to it. This band should be nearly parallel with the long axis of the root. Enlarge the canal with root reamers to make room for the tube; bore a hole about the center of the top of the cap and fit the tube through this into the root, bringing it relatively in position parallel with band at its palatal, mesial and distal, as the outer band does not continue at the labial. Wax cap and tube, remove, invest and solder with 20-K. solder tube (Fig. 5) and cap in position. Cut excess of tube at top of band; enlarge the opening of the tube for easy access of the pin. Smooth top and polish. Fig. 6 shows cross section.

The pin is now fitted into this tube, extending the split from the labial to the lingual side of the root, because the strain on the bridge is bucco- or labio-lingually, and thus its strength would be preserved. Cut an outer top a little larger than the inner cap made from 28-gauge coin gold; bore a hole and fit over the inner cap. When in position wax the pin and outer top, remove, invest and solder with 21-K. solder. Trim excess flush with the inner one, as in Fig. 7a. Over this construct the outer half band in 28-gauge coin gold, extending from the mesial to the distal side, leaving labial side of root free. Wax this band to the top; remove, use graphite paste inside to prevent the solder flowing into the outer cap; invest and solder by placing a small square piece of 20-K. solder about the middle of band joining the top, thus preventing undue expansion of metal and distortion of finished cap. After the soldering trim edges of the outer cap to the gum line; it should not extend under the gum. Fig. 7b shows outer cap with pin completed.

The tubes and the split pins could either be bought ready made at the dental supply houses or be made as follows:

Tube constructed of 32 to 34-gauge iridio-platinum plate, about half an inch wide; cut strip lengthwise with the grain of the metal. Anneal this and bevel one edge with file. Now place a mandrel of steel of a desired gauge at the bevelled edge, and roll the plate around the mandrel with pliers or a band-vise until the bevelled edge is exactly in

contact with the plate, thus preventing extra thickness of metal in the finished tube to fit into the root canal. Fig. 8 is the cross section of rolled tube. Now remove the mandrel and solder at this stage with pure gold. Excess is cut off, filed anfd smoothed. One end of this tube is now rounded, and a square piece of same metal as the tube placed at its rounded end and soldered with pure gold; the surplus is filed off and tube polished. Fig. 9 shows cross section of tube.

Split-Pins constructed as follows: Select half-round clasp wire of high-fusing point, slightly larger in diameter than that of the inside of the tube. The gauges of wires usually run between 12 and 14. It should be slightly larger to allow for filing of pin in finishing. Now anneal the half-round wire and bend the flat sides facing together, as in Fig. 10 (frequent annealing necessary at this stage) while manipulating it with pliers; or better, hold it in a flame at red heat. The ends are brought together and held until cold, thus removing the spring. The contact point is fluxed and soldered with a small piece of coin gold. Now hammer this pin, keeping it constantly revolving, while the halves are brought together; this will assist in securing a rounded pin. Fig. 11 shows pin soldered and hammered together. File pin very carefully while it is being revolved, and finally the closed end is filed open and rounded, fitted to the tube, burnished and polished.

Figs. 13 and 14 show completed bridge having a telescope crown and a split-pin and tube as abutments.

Developing Ourselves and Others

By George Wood Clapp, D.D.S., New York

The Bulletin of The Educational and Efficiency Society for Dental Assistants, First District, New York, lists the following classes for members:

Sterilization	Roentgenograms
General Laboratory	Office Regeneration
Gold Casting	Porcelain

Office Accounting and Records
Speaking and Parliamentary Procedure

To every dentist interested in the proper organization of the work in his office such offers of instruction for his assistants are of great importance. Much of the information may be such as he does not possess, since these bright young women often develop better technics than the dentist was ever taught. Such classes offer an opportunity for such technics to become general in progressive offices, instead of being confined to the office where they originated.

These classes are very important to dentists who are poor teachers of their assistants. And such an attitude or position by the dentist is appallingly frequent. Thousands of young ladies in dental offices who have the capacity to develop into efficient secretaries, office managers, chair nurses, laboratory assistants, radiographic assistants, etc., are undeveloped because the dentist is too busy and too short-sighted to teach them or is incapable of teaching.

The maximum professional benefits to the public and the maximum professional and financial benefits to the dentist are obtainable only when each person in the office is well trained for the duties committed to his or her care. The better the training, the greater the benefits; the poorer the training, the greater the lost motion, the more numerous the ungrasped and undeveloped opportunities and the higher the cost, to the dentist, of a satisfactory standard of dental service.

These classes are of especial importance to dentists who are endeavoring to render good dental service at moderate fees and earn satisfactory remuneration. It is the very essence of a dental office organization operating for such an end that all forms of service, save the strictly professional, shall be performed by someone whose time should be less valuable than the dentist's time, and that the dentist should be free to develop sufficient practice to keep everybody busy and to diagnose and operate.

In most large communities, really good service, pleasingly rendered, at moderate fees will enable dentists of good business ability and

pleasing personality to develop large practices. And a practice busily employing five or six people, not including a graduate dentist associate, can often render a good quality of service at a cost 40% or 50% lower than the cost of the same operation when every activity in the office is carried forward, on the same plane, by the dentist acting as interviewer and telephone conversationalist, service salesman, contractor, diagnostician, operator, buyer of appliances and supplies, accountant or supervisor of accounts, and collector, and a girl assistant who is chair nurse, secretary, partial accountant and perhaps laboratory assistant.

There are numberless opportunities in dentistry. The keys that open some of the most desirable doors are keys of development, self-development and development of assistants.

Classification of the Dental Schools of the United States

December 6, 1923.

DR. GEORGE WOOD CLAPP
Editor Dental Digest
DEAR DOCTOR CLAPP:

In view of the fact that changes have been made since the publication of the classification of the dental schools of this country under date of July 1, 1923, by the Dental Educational Council of America, I am writing to ask if you will please publish in the next issue of The Dental Digest the classification under date of September 15, 1923.

Cordially yours,

ALBERT L. MIDGLEY,
Secretary of The Dental Educational Council of America.

Schools are listed in alphabetical sequence by states for convenience only, the order of presentation within each class having no significance.

CLASS A

University of California, Dental Department, San Francisco, Calif.

University of Southern California, College of Dentistry, Los Angeles, Calif.

Chicago College of Dental Surgery, Chicago, Ill.

Northwestern University Dental School, Chicago, Ill.

University of Illinois, College of Dentistry, Chicago, Ill.

State University of Iowa, College of Dentistry, Iowa City, Iowa.

University of Louisville, College of Dentistry, Louisville, Ky.

Harvard University Dental School, Boston, Mass.

Tufts College, Dental School, Boston, Mass.

University of Michigan, College of Dental Surgery, Ann Arbor, Mich.

University of Minnesota, College of Dentistry, Minneapolis, Mich.

St. Louis University School of Dentistry, St. Louis, Mo.

Washington University School of Dentistry, St. Louis, Mo.

Creighton University, College of Dentistry, Omaha, Nebraska.

University of Buffalo, College of Dentistry, Buffalo, N. Y.

Western Reserve University Dental School, Cleveland, Ohio.

Thomas W. Evans Museum and Dental Institute, School of Dentistry, University of Pennsylvania, Philadelphia, Pa.

University of Pittsburgh, School of Dentistry, Pittsburgh, Pa.

Vanderbilt University, School of Dentistry, Nashville, Tenn.

Baylor University, College of Dentistry, Dallas, Texas.

Marquette University, College of Dentistry, Milwaukee, Wis.

Class B

College of Physicians and Surgeons of San Francisco, San Francisco, Calif.

University of Denver, School of Dentistry, Denver, Colo.
(Formerly Colorado College of Dental Surgery)

Georgetown University, Dental Department, Washington, D. C.

Howard University Dental College, Washington, D. C.

Atlanta-Southern Dental College, Atlanta, Ga.

Loyola University, School of Dentistry, New Orleans, La.

Tulane University of Louisiana, School of Dentistry, New Orleans, La.

University of Maryland, School of Dentistry, Baltimore, Md.
(Baltimore College of Dental Surgery was merged with it on June 15, 1923.)

Kansas City-Western Dental College, Kansas City, Mo.

University of Nebraska, College of Dentistry, Lincoln, Neb.

Ohio State University, College of Dentistry, Columbus, Ohio.

North Pacific College of Dentistry, Portland, Oregon.

Temple University Dental School, Philadelphia, Pa.
(Formerly Philadelphia Dental College.)

Meharry Dental College, Nashville, Tenn.

University of Tennessee, College of Dentistry, Memphis, Tenn.

Medical College of Virginia, School of Dentistry, Richmond, Va.

Class C

Cincinnati College of Dental Surgery, Cincinnati, Ohio.

Texas Dental College, Houston, Texas.

Classification Postponed

Indiana Dental College, Indianapolis, Ind.
(Classification postponed until the next meeting of the Council.)

Columbia University School of Dentistry, New York, N. Y.
(Incorporated with the College of Dental and Oral Surgery of New York. Classification postponed until reorganization has been completed.)

New York College of Dentistry, New York, N. Y.
(Classification postponed until the next meeting of the Council.)

Ohio College of Dental Surgery, Cincinnati, Ohio.
(Affiliated with the University of Cincinnati on July 1, 1923; early complete merger in prospect.) (Classification postponed until the next meeting of the Council.)

Merged Recently With Universities

Colorado College of Dental Surgery.
(Merged with Denver University, June 15, 1922.)

Baltimore College of Dental Surgery, Baltimore, Md.
(Merged with the Dental Department of the University of Maryland, June 15, 1923.)

College of Dental and Oral Surgery of New York, New York, N. Y.
(United with the School of Dentistry of Columbia University on July 1, 1923.)

Discontinued Since the Publication of the Classification of 1920

(1921) George Washington University, Dental School, Washington, D. C.

(1923) University of West Tennessee, Dental Department, Memphis, Tenn.

A Successful Society Calendar

The Canandaigua Dental Society of Canandaigua, N. Y., has developed a plan which has met with such success that its adoption might be tried by other local societies that may need stimulation.

Briefly, the officers of the Society plan a year's activities ahead, so that they are able to issue a calendar. Meetings begin in October and continue, one each month, until May, after which meetings are suspended for the summer and early fall.

Another and rather novel feature of the plan is that of having the members of the Society take turns in acting as host. The host entertains the Society at dinner preceding the meeting, but as this duty comes but once in two or three years it is not a burden and as it is always planned in advance the expense is never embarrassing.

The meetings are open to all ethical dentists, and if non-members

wish to attend the dinner they may do so, but paying for their own dinners. At some meetings there have been as many as fifteen dentists who were not members. As an indication of the worth-while character of the meetings for 1923-1924, the calendar follows:

OCTOBER 2, 1923

GOLD CASTINGS

Mr. Percy Waller, Rochester, N. Y.
Host, Dr. H. L. Coons. Place of Meeting, Canandaigua Hotel.

NOVEMBER 6, 1923

ORTHODONTIA IN GENERAL PRACTICE

Dr. H. P. Shepard, Rochester, N. Y.
Host, Dr. B. G. Hicks. Place of Meeting, Canandaigua Hotel.

DECEMBER 4, 1923

DENTURE IMPRESSIONS

Dr. Chas. G. Lynch, Rochester, N. Y.
Host, Dr. A. B. Dusinberre, Place of Meeting, Sanitarium, Clifton Springs, N. Y.

JANUARY 8, 1924

A PROCEDURE FOR SWAGING WIRE CLASPS FOR PARTIAL DENTURES

Mr. Geo. L. Roth, Hartford, Conn.
Host, Dr. J. G. Elliott. Place of Meeting, Canandaigua Hotel.

FEBRUARY 5, 1924

ORAL SURGERY, WITH PARTICULAR REFERENCE TO IMPACTED TEETH

Dr. Clifford E. Rose, Buffalo, N. Y.
Host, Dr. A. M. Johnston. Place of Meeting, Canandaigua Hotel.

MARCH 4, 1924

CARMICHAEL ATTACHMENTS

Dr. Paul Jones, Rochester, N. Y.
Host, Dr. J. J. Mattison. Place of Meeting, Flannigan's.

APRIL 1, 1924

ORTHODONTIA

Dr. Chester F. Hummel, Rochester, N. Y.
Host, Dr. C. J. Kenfield. Place of Meeting, Canandaigua Hotel.

MAY 6, 1924

TIME SAVERS IN DENTISTRY

Dr. Geo. D. Greenwood, Rochester, N. Y.
Host, Dr. E. T. Sharp. Place of Meeting, Canandaigua Hotel.

THE OFFICERS OF THE CANANDAIGUA DENTAL SOCIETY ARE:

President Emeritus—Dr. Cornelius J. Andruss.
President—Dr. Lot D. Sutherland.
Vice-President—Dr. Everett T. Sharp.
Secretary—Dr. George Conyne.
Treasurer—Dr. Clifford J. Kenfield.
Librarian—Dr. Adelbert B. Dusinberre.

The president always has charge of the meetings and any extra expenses for speakers or other demands are met by simply asking members to assist, and the Society has never had the least trouble in financing its affairs.

Dr. King is Honor Guest at Banquet

The Cuban Odontological Society gave a banquet at the Hotel Sevilla-Biltmore, November 29, 1923, in honor of Dr. Otto U. King of Chicago, Ill., secretary of the American Dental Association. Dr. King was the honoree of the degree of doctor of dentistry and a medal of honor from the society at the Academy of Medical Science.

Twenty-three members and guests were present at the banquet. Short addresses complimenting Dr. King on his remarkable labors in the dental profession were made by Dr. Marcelino Weiss and Dr. Rente de Vales. Mrs. King was presented with a huge bouquet of American Beauty roses by the wives of the society's members.

The guests at the banquet, besides Dr. and Mrs. King, were Dr. and Mrs. Andres Weber, Dr. and Mrs. Andres del Portillo, Dr. and Mrs. Angel Vieta, Dr. and Mrs. Ramon Moeller, Dr. and Mrs. R. L. Lasseter, Srta. Lucia Weiss, Dr. Marceline Weiss, Dr. Manuel Rockafort, Dr. Rente de Vales, Dr. Resende Ferns, Dr. Rafael Biada, and Dr. Teodore Miranda.—*The Havana Post.*

State Reciprocity

By W. A. Roddy, D.D.S., Ex-President Missouri State Board of Dental Examiners*

There is a clause in the Constitution of the United States, to-wit: "When the people decide that the laws governing them are no longer right and proper, the people shall have the power to change the law."

There are some thirty-odd thousand dentists in the United States. While the laws governing the practice of our profession in the various states were made by the vote of all the people, yet we, as that specialized department (constituted by the dental profession) *dictated the terms of the dental laws of every state.* The enforcement of the dental laws is vested in the various states to the State Board of Dental Examiners. The flexibility of the laws in some states is likewise trusted to the State Board of Examiners. That particular flexibility, which some state dental laws grant the respective state dental boards, is that of recognizing other state board certificates for the practice of dentistry. This, however, is not true in all states.

The question arises: Why do we not enjoy *national reciprocity of all states,* especially since such a new departure would be heartily endorsed by the great majority of the dental profession throughout the country? Why do some of our state boards absolutely refuse to enter into reciprocal relations with other states? Why should we, as a professional class, who have been graduated from reputable and recognized institutions of training, be regarded by the populace of another state as unqualified to practice our vocation unless we submit to a formal state board dental examination? Why should we, who have at some time passed one state board examination, and having been regarded as qualified, be geographically limited to one particular section, even after years of honest, faithful and legitimate efforts to serve our fellow men?

Think of the discomfort and inconvenience it causes all dentists who must change states for reasons of health. It is just a case of formal plugging for the board, in order to get the candidate over the hump, and if he is just naturally a poor dentist, he will again revert to that stratum soon after the examination is over. Taking another board examination is purely a matter of inconvenience, injustice, unfairness, discomfort and loss of time.

The partial and lukewarm reciprocity, which is in vogue at the present time, is a pitiful compromise among a few states, and represents a situation which should be remedied in a big and broadminded way. If the non-reciprocity reasons of the several states were given

*Reprinted from the Washington University Dental Journal, June, 1923.

publicity in the press, we, as a representative professional class in these states, would be held up for public ridicule, and the principles of these premises would be condemned as bigoted and truly un-American.

Those states who do not desire and who will not enter into reciprocal relations with other states have advanced several reasons. These reasons, when placed under the microscope of an unbiased scrutiny, appear as petty and self-centered. The argument is advanced, for instance, that the non-reciprocity principle is intended to keep the non-ethical dentists out of the state. Does this argument hold? One of the most prominent unethical dentists in the United States, whose chain of offices extends the entire length of the Pacific Coast, asserted that he could become registered in any state he chose. It is a matter of knowledge on the Pacific Coast that one set of examiners in a certain state used every reasonable and legitimate effort at their command to keep him from becoming registered in said state. He took the board examination, and passed, and is now doing business in every large town in the state. Hence, non-reciprocity will not bear the acid test where the elimination of the unethical dentist is desired. But granting that it would, why should thousands of ethical men be discriminated against to keep out a few unethical practitioners? The latter class is certainly in the great minority.

Do we not, for instance, recognize and concede absolute superiority of the departments of our United States National Government as arbiters on all issues? Do we not recognize the United States Supreme Court as supreme over any state court? Why can we not have a supreme board of examiners, representing all the states, covering dental examinations? We could still maintain state dental boards in each state, but acting in behalf of the national board. We, as dentists in these United States, are American citizens, most all having been graduated from recognized institutions and who have qualified before some state dental board, which board is recognized in the state commonwealth, and as part of our National Government, and it should be our sovereign right to practice our profession anywhere within the domain of the Stars and Stripes, so long as we do not bring disrepute and discredit through misconduct, upon our worthy profession. We won't all madly rush to California, or Colorado, or New York, or Florida, for the old balance wheel of supply and demand will pretty well regulate a well-balanced equation. And the dentists of the congested cities of the East and the North, as well as the dentists of Podunk, will not answer the lure of the golden West or the sunny South any quicker after we inject the American principle of National Reciprocity into our curriculum.

Rational Treatment of Pulpless Teeth

By Elias Lieban, D.D.S., New York, N. Y.

Clinical Director and Lecturer on Root Canal Therapy, New York College of Dentistry; formerly Dental Surgeon of Lebanon Hospital, New York City; Metropolitan Hospital, New York City.

The object of this article is to present a technique in root canal therapy which the author has formulated with modifications, after accepting the various methods advocated by our leading authorities.

Credit must be given to Rhein, Callahan, Grove, Noyes, Black, Hopewell-Smith, Starr, Best, Ottolengui, Coolidge, Hinman, Johnson, Crane and a host of others to whom the writer is indebted for their teachings and research findings.

It seems unnecessary to emphasize the position the dentist of today occupies. He is called upon to render intelligent service to his patients and must be able to diagnose properly and differentiate diseased conditions of the oral cavity, the teeth and their surrounding structures from the normal, and to appreciate fully their relationship to general health. The recognition which this branch of dentistry has found in the past is evident and there is no doubt that infected teeth are the seat of primary lesions in certain systemic diseases, but periapical lesions are not the only ones that may show localizing indications. A careful examination should be made of the sinuses, nose, tonsils, bronchi, gall bladder, biliary tract and genito-urinary tract. Submucous and subcutaneous abscesses are occasional foci. Systemic and local diseases may occur through infection from a focal point by way of the blood stream.

There are many men, who condemn all pulpless teeth to extraction, especially those teeth that are infected and show any rarifying areas about the apices, claiming that it is impossible to render them sterile. Clinical observation and bacteriologic reports disprove this theory, and the writer maintains favorable results in a good percentage of cases, provided proper precautions are taken in the selection and treatment of such cases.

Many infected teeth are the result of carelessness on the part of the operator. This work should not be undertaken by the dentist who disregards the essential requisites in surgical procedure, and is not willing to allot the time and care this work demands.

The author has no desire to exploit his own skill but feels that, by presenting the work of his under-graduate students, he can better demonstrate that the technic advocated is practical and essentially possible for the practitioner of average skill and, let us hope, more than average care and consideration for his patients' welfare. In brief, if dental students, using this technic can achieve the results which will be shown in succeeding articles, the author feels justified in his belief

that he is presenting a helpful contribution to the profession and such is his desire. It may not be too much to hope that his readers will become enthusiastic about root treatment instead of indifferent to it as so many have been in the recent past.

The author will endeavor to present his technic as clearly as possible, and will subdivide the procedure into a series of articles under the following heads.

Diagnosis

Consideration of age and general health of patient, clinical examination, radiographic interpretation, methods of determining vitality of pulps, history charts.

Description

Instruments, dressing, medicaments, and special equipment.

(A) General photographic description of the instruments and special equipment used in the technic.

(B) Medicaments.

Asepsis

Preparation of the operator. Sterilization of operative field, sterilization of instruments, dressings, etc.

Treatment of Non-Infected Pulps

Capping non-infected exposed pulps. Methods of devitalization, pulp removal, surgical cleansing of root canals.

Treatment of Putrescent or Gangrenous Pulps and Infected Areas

Radiograms interpreted, surgical cleansing of root canals, ionization, microscopic examination and cultures.

Root Canal Filling

Preparation of canals, technic of filling canal. Removal of old guttapercha root canal fillings. Case reports.

(Next paper will take up diagnosis.)

17 West 42nd Street.

Princeton Wants School Dentist

The Board of Education of Princeton, New Jersey, is looking for a school dentist. The school clinic is open two days a week, and the salary is $120.00 per month. Applicants must be registered in New Jersey.

Hospital for Joint Diseases

The announcement of the Hospital for Joint Diseases, 1919 Madison Avenue, New York City, that it will have a special dental department in its new $2,000,000 hospital building shows conclusively the place dentistry has in the cure of disease.

The dentists in the dental clinic of the hospital will act as a special committee to secure funds for the new dental department. The committee will be headed by Dr. Percival S. Sprinz, oral surgeon and chief of the dental and oral surgery departments at the hospital. The dentists who compose the committee are Dr. Philip Sac, Dr. Jules Fischer, Dr. M. B. Felson, Dr. Sol Greenberg, Dr. Charles Haimes, Dr. Louis Leshey, Dr. Murray Levine, Dr. Wm. Schwaid and Dr. A. Schwartz.

The new hospital will be the largest orthopedic hospital in the United States. It will have a capacity of 200 free beds and a private pavilion with 75 beds. It will be ready for occupancy early next spring. Buchman & Kahn are the architects of the new eight-story hospital building and G. Richard Davis is in charge of the work of construction.

"A hotel for the sick" is the idea underlying the construction of the hospital. Under the usual hospital construction, the offices are located down a hallway at some distance from the entrance and very often there is no one to greet the individual as he enters, or no one from whom he may receive information. The Hospital for Joint Diseases will have a lobby corresponding exactly to a hotel lobby. Facing the entrance will be a desk, a duplicate of that in the Hotel Statler in St. Louis, where will be the information clerk, bookkeeper and cashier. As a further check upon the entrance, a mirror will be so arranged at the telephone switchboard that the telephone operator can see every one who enters.

Each private room will have a balcony which will be larger than the floor space of the room. This will enable the patient to get the benefit of sunlight in his treatment.

The origin for the Hospital for Joint Diseases dates back to September, 1904, when the "Frauenthal Clinic" was established at 558 Lexington Avenue. The purchase of the building at 1917 Madison Avenue was the beginning of the hospital on its present site. Since, the Board of Directors have purchased all the property on Madison Avenue between 123rd and 124th streets, giving it a frontage of 200 feet on Madison Avenue, 154 feet on 123rd Street and 154 feet on 124th Street. All the buildings on this plot were demolished in the fall of 1922 except that of the new dispensary in preparation for the erection of the new hospital. The six-story dispensary of the hospital at 41-43 East 123rd Street is the largest dispensary of any kind in

this country. The dental clinic is located on the fourth floor of the dispensary. It has four chairs and a separate X-ray outfit for the treatment of such joint conditions as have their source in the buccal cavity. Many school children are among the patients at this clinic.

All dentists desiring to contribute funds for the equipping of the Dental and Oral Surgery Departments, can do so by sending checks to Dr. Percival S. Sprinz, 574 West End Avenue, New York City, or direct to the hospital in care of Dr. Sprinz.

In the course of its existence the hospital has given more than 1,103,000 treatments, according to a recent statement issued by Dr. Henry W. Frauenthal, its founder and surgeon-in-chief, and it has cared for 134,000 different patients.

Westchester Dental Society

(Affiliated with the Allied Dental Council)

Regular meetings held on the third Tuesday of each month from October to May, inclusive, at the Yonkers Chamber of Commerce, 35 South Broadway, Yonkers, N. Y.

The next regular meeting of the Westchester Dental Society will be held at the Yonkers Chamber of Commerce, 35 South Broadway, Yonkers, N. Y., on Tuesday, January 15th, 1924, at 7:30 P. M.

At this meeting Dr. George Wood Clapp, Editor of THE DENTAL DIGEST, will lecture on "Economic Elements in Professional Success." A cordial invitation is hereby extended to *all* dentists to attend this meeting.

Preceding Dr. Clapp's lecture a table clinic on "A New Simple Form of Removable Bridgework" will be given by Dr. Victor H. Siebel.

The last meeting of the Westchester Dental Society was held at the Yonkers Chamber of Commerce on December 18th, 1923. Dr. M. L. Rhein of New York lectured on "The Present Day Outlook of the Pulpless Tooth Question." The lecture was illustrated by lantern slides. The discussers were Dr. Walter E. Fancher of Yonkers, N. Y., and Dr. Frederick Birnberg of New York.

Dr. Elias Lieban gave a very interesting table clinic on "Root Canal Therapy."

A. S. ROCHLIN, D.D.S., *President,*
205 Flagg Bldg., Yonkers, N. Y.
H. ROSENBERG, D.D.S., *Secretary,*
15 Palisade Ave., Yonkers, N. Y.

The Japanese Disaster

At 11.58 A. M., September 1, 1923, the cities of Yokohama and Tokyo were as normal, as busy and as happy as big cities usually are. Two minutes later, almost the entire city of Yokohama and a large part of Tokyo were in ruins.

Japan lies in what is known to students as the "earthquake belt." Earth tremors are of almost daily occurrence. The more serious are usually preceded by warnings in the form of slight tremors. In this case, the initial tremor, the first of about seven thousand within a few days, was the most severe and destructive.

Much of the building construction is of a character to suffer but little from earthquakes and to expose the inhabitants to the least

Fig. 1. Remains of the newly erected hospital. Reinforced concrete withstood earthquake and fire better than any other form of construction. This and the two pictures next following were received from Dr. Nakahara.

danger of being crushed. But, in each city, a considerable business section had developed, housing, among others, the offices and representatives of foreign corporations. Many of the buildings were of very substantial types while the earth stood still or trembled only slightly. In this quake they instantly collapsed into heaps of masonry, often burying their occupants. Only reinforced concrete buildings withstood that shock.

The collapse of multitudes of buildings upon the numberless fires in use for domestic and commercial purposes started building fires in

every quarter at once. These fires, fed by the inflammable building material, were fanned by a typhoon into conflagrations which spread toward each other until they formed a ring of fire.

There was no means of opposing them. The water mains were broken. Much fire-fighting apparatus was destroyed. The streets were impassable, even on foot. People fled by climbing from ruin to ruin and from stone to stone toward open spaces or buildings which offered protection. They could not go far—there was not time enough. Even in their terror they could not go rapidly. The ruins, the injured, and the need of assisting made progress slow. Thousands were caught by the flames as they fled, some within a few feet of the water.

Buildings which would be proof against any ordinary fire became

Fig. 2. The Nippon Dental College and Library, the fruit of fifteen years of hard work by Dr Nakahara and associates, having a value of nearly $400,000, were completely destroyed. Tokyo Dental College was completely destroyed in a similar manner, causing a loss of approximately $325,000 to Dr. Chiwaki.

charnel houses in this. One of the pictures shows the Specie Bank, a most substantial building, which withstood the tremors. It had iron shutters and thick walls. Hundreds of people took refuge within. The fire finally forced its way in, overcame the puny resistance of the occupants and gutted the building. Several hundred people were consumed.

Another picture shows the bodies of one of the groups which, unable to gain entrance, died huddled before one of the doors. In one of the great open spaces 38,000 people were gathered. All were burned to death though the heat was not quite intense enough to consume the bodies.

In both cities there were many dentists, a few American and many Japanese. The offices of all the American dentists in Yokohama were completely destroyed, with their contents. One dentist had a miraculous escape. He was working for a patient. Without warning the building collapsed. Patient, dentist, chair and building fell to the ground level. In the fall, the upper floors arched a little way above ground and directly over dentist and patient. Both got to the street. Neither was hurt.

The Japanese are a very intelligent and industrious people. Their dentists present these characteristics in high degree. And, as with intelligence and industry progress is irresistible, they have progressed rapidly and far from the days when dentistry was neither a trade nor

Fig. 3. Interior of the hospital shown in the first picture.

a profession but a mere mongrel among occupations. There have been established seven dental colleges entirely by private means and enterprise. They represent years of hard work and the investment of large sums of money. Some were about to be recognized as universities worthy of a place in the accredited educational system of the empire. They are keen students of what goes on in dentistry elsewhere. At least 1,000 dental offices and five of the dental colleges are in ruins. Not a chair, not an instrument, not a book or magazine is left.

Some among the American dentists who have visited Japan or have been visited by the Japanese feel that it would be a fine thing for American dentists to do something by way of showing especial interest in the dentists, American and Japanese, who have been impoverished

Fig. 4. A portion of the foreign business section of Yokohama. Save for the effects of the fire, the destruction was as complete as this in much less than a minute. These were substantial buildings. It is evident that people could not flee rapidly from fires over such obstacles as these.

Fig. 5. Concrete roads, walks and piers were rent in this fashion as if they were made of paper. So nearly instantaneous was the action that people fell into cracks which opened beneath their feet, as they walked, before they could even vary a step to seek safety.

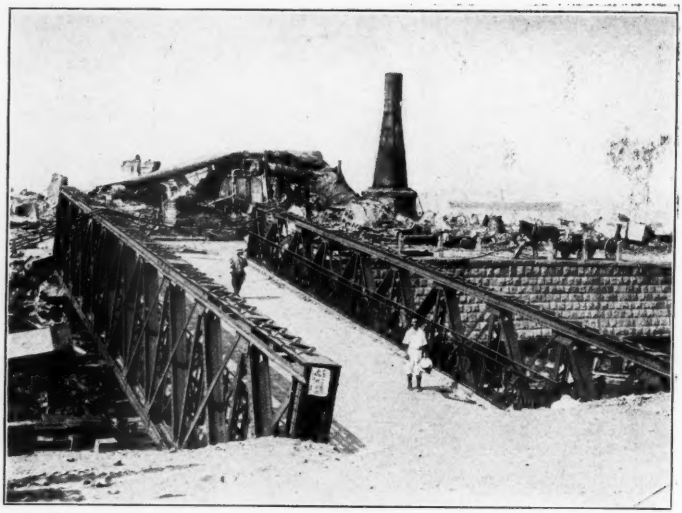


Fig. 6. The Grand Hotel, Yokohama, was perhaps the most famous rendezvous of the Far East. It was said that if you sat long enough on its porch you would see everybody worth seeing. This picture shows what is left of it.

Fig. 7. The Specie Bank at Yokohama withstood the quake and promised a refuge from converging conflagrations. It is said that 400 persons got inside and closed the shutters. All were burned to death.

by causes beyond their control. Moved by this spirit, The First District Dental Society, New York, has placed the solicitation and disbursement of funds in the hands of a committee with Dr. Herbert L. Wheeler as chairman, and has headed the subscription list with $500. In response to the committee's solicitation, the following donations have been received up to the time of going to print:

First District Dental Society, New York	$500.00
Washington Heights Dental Society, New York	50.00
Dr. G. W. Clapp, New York	50.00
The Dental Digest	25.00
Dr. C. J. Brophy, New York	10.00
Dr. S. DeSola, New York	10.00
Dr. E. A. Gerenson, New York	10.00
Dr. A. R. Shihido, New York	10.00
Dr. H. L. Wheeler, New York	10.00
Dr. Theodor Blum, New York	5.00
Dr. Martin Dewey, New York	5.00
Dr. A. S. Litten, New York	5.00
Dr. J. L. Peters, New York	5.00
Dr. A. Wald, New York	5.00
Dr. A. S. Walker, New York	5.00
Dr. F. Birnberg, New York	1.00
	$706.00

All funds received by the committee will be distributed through Mr. Goold, Assistant Manager of the Standard Oil Company for Japan.

It is not the thought of the committee that it will be able to set the impoverished dentists again in practice, with new equipment, much as they might like to. But if every subscriber to this magazine were to contribute even one dollar, a fund of $18,000 would result, which would make it possible to do something for the American dentists impoverished by the disaster and to make contributions toward the reconstruction of at least the more important dental colleges or their libraries or equipment.

The American public has given $10,000,000 for Japanese relief. But this matter of intra-professional cooperation is sort of "in the family." If some disaster erased your practice, your building and equipment, your home and your savings, and your educational institutions, you'd like to feel that dentists elsewhere were rather especially interested in your case and wanted to help, at least a little, in the preservation of your professional resources.

Do you want to put a dollar "in the pot"? Of course you may put in as much more as you like, but this is what it costs you "to open."

If you send it to Dr. Wheeler, 20 East 53rd Street, New York City, or to me, it will be acknowledged here.

Donations of *recent* dental textbooks and magazines will be welcomed by the dental colleges there; also, apparatus of practical value.

GEORGE WOOD CLAPP.

The following letter was received by Dr. Wheeler from Dr. Chiwaki, President of the Tokyo Dental College and also President of the Dental Federation of Japan, just as the Digest was going to print:

No. 9 Nichome, Misakicho,
Kandaku, Tokyo, Japan,
November 10, 1923.

Dr. Herbert L. Wheeler,
20 East 53rd Street,
New York City, U.S.A.

My dear Dr. Wheeler:

No doubt by this time you were informed of the terrible calamity which befell Tokyo, the capital city, and Yokohama, the chief seaport, and their surrounding

Fig. 8. Many persons who tried to get into the Specie Bank could not be admitted. There was no place to which they could flee from the flames. This picture shows a group burned to death before one of the doors.

regions. The extent of the damage wrought by this unprecedented catastrophe is so gigantic and overwhelming that it causes great anxiety upon the future outlook of the dental profession of Japan.

That memorable event, Commodore Perry's visit in 1854, brought to Japan many agencies of modern civilization. Law, politics, science, army, navy, art, literature, etc., were introduced and fostered by the government. The government's subsidiary aid established these institutions among the people, but the dental profession alone has had an entirely different history. American dentistry was

Fig. 9. The instantaneous wreckage of a railroad system in a district usually free from serious quakes shows something of the extent of the disaster.

Fig. 10. More than 30,000 people were driven into one of the great open spaces and there burned to death by the ring of fire through which there was no escape.

introduced privately and made its development depending entirely upon private resources.

Permit me to say that from the early days it was my earnest endeavor to copy American dentistry implanted in Japan. This I consider to be the highest aim of my ambition.

You are somewhat familiar as to what progress the Japanese dental profession has been making. Before this calamity took place, the number of practicing dentists throughout the country had reached over 8,000. The seven dental colleges, two of which are female, were established by entirely private parties in Japan. Five of these colleges were located in Tokyo which is the educational center of this country. The aggregation of enrollment in these five dental colleges amounted to about 2,000 students.

In Tokyo, Yokohama, and their vicinity there were 1400 practicing dentists, the majority of whom were enjoying a rather lucrative practice.

The recent disaster practically annihilated more than 1,000 dentists and five dental colleges. The recovery of the dental offices in these devastated regions is very slow and difficult. In many cases it is almost hopeless because of the lack of resources, while the restoration of the five destroyed dental institutions is still more difficult because there is no one to come to the rescue in our country. The great trouble is that the government and the majority of the general public do not have the proper conception of the importance of oral hygiene.

Moreover, the material resources of Japan were originally very, very poor and owing to this disaster it will be sadly exhausted. We need America's cooperation to give immediate relief to 1,000 poor dentists and sufficient funds to rebuild five dental colleges.

On the twenty-fourth of September, the representatives of five dental colleges in Tokyo and some other dental societies met and discussed a plan which was kindly suggested by an American dentist, Dr. L. E. Butler, who has been practicing in Yokohama for several years and who was also burnt out. The plan suggested was to make an urgent appeal to the American Dental Association in order to solicit some relief funds to aid the dental colleges and dentists in these devastated regions. It was thought best to get the American ambassador's approval for such a movement, and he readily gave us his consent to assist us in this undertaking. A cablegram was sent to the State Department in Washington requesting that this message of appeal should be transferred to Dr. Otto King, the secretary of The American Dental Association. No doubt you have been consulted in this matter long before this time and I trust that some effective action has been already started for this worthy cause. I earnestly hope you will use your personal influence to do all you can to make it bear fruit.

I am fervently making this appeal to you in behalf of these afflicted brother dentists and the ruined institutions, as we are in the utmost need.

If you will send us old copies of dental magazines, textbooks, etc., they will be deeply appreciated by us all.

With my best personal regards, I remain

Very faithfully yours,

(Signed) MORINOSUKE CHIWAKI.

Russian Relief Fund Contributions

FLORIDA STATE DENTAL SOCIETY			$200.00
ILLINOIS STATE DENTAL SOCIETY			
Champaign-Danville District Dental Society	.....	$50.00	.....
Chicago Dental Society:			
Dr. T. W. Brophy, Chicago	$100.00	.....	.....
Dr. J. P. Buckley, Los Angeles, Calif.	50.00	.....	.....
The following from Chicago have contributed $50 each: Chicago College of Dental Surgery; Englewood Branch, C.D.S.; Evanston Dental Luncheon Club; Dr. V. H. Fuqua; Dr. T. L. Gilmer; Dr. T. L. Grisamore; Dr. C. N. Johnson; Kenwood-Hyde Park Branch, C.D.S.; Dr. W. H. G. Logan; Dr. F. F. Molt; Dr. F. B. Moorehead; Northwest Side Branch, C.D.S.; Northwestern University Dental School; Dr. B. S. Partridge	700.00	.....	.....
Dr. H. E. Phillips, Chicago	45.00	.....	.....
Dr. A. D. Black, Chicago	26.00	.....	.....
Dr. F. W. Gethro, Chicago	26.00	.....	.....
Dr. J. B. Olech, Chicago	25.00	.....	.....
Dr. Edmund Noyes, Chicago	16.67	.....	.....
Dr. B. O. Sippy, Chicago	16.67	.....	.....
Dr. F. B. Noyes, Chicago	16.66	.....	.....
Bohemian Dental Society	15.00	.....	.....
Dr. Josephine D. Pfeifer, Chicago	11.00	.....	.....
The following dentists from Chicago have contributed $10 each: David Barmack, F. E. Cheeseman, Wm. Devlin, H. L. Frankel, H. J. Goslee, L. E. Jelinek, E. Mary Lohman, L. T. Megaw, Jas. Prothero, G. E. Silverling, F. H. Skinner	110.00	.....	.....
The following dentists from Chicago have contributed $5.00 each: D. W. Adams, E. L. Aison, M. L. Aren, W. C. Ball, M. E. Bellows, A. B. Berkensteadt, F. J. Bernard, A. W. Blim, M. M. Block, E. P. Boulger, C. T. Brady, M. D. K. Bremner, H. L. Brown, J. C. Cannon, L. Clow, F. G. Conklin, A. A. Cowin, L. L. Davis, C. H. Dodge, I. Drozdowitz, L. N. Drues, S. W. Fahrney, N. Z. Feldsher, L. J. Fels, J. Ford, H. A. Frankel, H. Franz, W. E. Fribley, S. L. Friedman, J. L. Ginsberg, H. O. Hansen, F. T. Hays, H. A. Honoroff, L. S. Huhn, A. Kamin, W. Kamin, J. H. Kaplan, M. L. Kettlewell, N. Kimmel, G. G. Knapp, C. R. Kuderling, H. C. Lee, M. H. Lewin, J. S. McLaren, E. Maginnis, J. B. Medina, C. E. Meerhoff, J. C. Miller, L. Miller, E. H. Morhnam, S. E. Ofner, F. C. Perl, H. B. Pinney, G. W. Pitts, A. B. Pooley, F. B. Rhobotham, A. Rodosy, J. G. Rosen, F. J. Ryan, A. L. Schloss, D. S. Singer, E. O. Smedberg, J. Snow, M. W. Trude, L. T. Weinshenker, J. G. Wiedder, L. G. White, A. T. Williams, P. Wumkes, J. C. Yates	350.00	.....	.....
Dr. J. A. Dunn, Chicago	4.00	.....	.....
The following Chicago dentists have contributed $3.00 each: A. J. Agranat, H. Reiseman, A. M. Schoenbrod	9.00	.....	.....
Dr. D. J. Ratner, Chicago	2.50	.....	.....
The following Chicago dentists have contributed $2.00 each: J. A. Atchison, C. D. Bates, A. I. Porges	6.00	.....	.....
The following Chicago dentists have contributed $1.00 each: L. Barcroft, J. R. W. Cook, E. Hahn, G. R. Olfson, R. R. Rains, G. O. Vennesland	6.00	.....	.....

Members of West Suburb Branch of C. D. S. have contributed as follows: S. Israel, Chicago, $5.00; E. W. Elliot, Chicago, $4.00; Nathan Styrt, Melrose Park, $4.00; H. L. Akin, Maywood, $3.00; H. C. Billig, Maywood, $3.00; D. R. Dawson, Melrose Park, $3.00; R. J. DeAmo, Melrose Park, $3.00; M. G. Fox, Chicago, $3.00; J. Y. Hurdle, Maywood, $3.00; C. Miller, Maywood, $3.00; C. F. Rockey, Oak Park, $3.00; W. E. Werninghouse, Melrose Park, $3.00; A. W. Campbell, Chicago, $2.00; W. Edlund, Maywood, $2.00; L. F. Hein, Oak Park, $2.00; E. A. Prugh, Oak Park, $2.00; J. L. Wagner, Chicago, $2.00; L. V. Magoon, Oak Park, $1.00	$51.00	.....	.....
Total—Chicago Dental Society		$1,586.50	.....
Eastern Illinois Dental Society	.....	50.00	.....
LaSalle County Dental Society	.....	32.00	.....
Sangamon-Menard County Society	.....	150.00	.....
Total—Illinois State Dental Society			$1,868.50
INDIANA STATE DENTAL SOCIETY			
The following Hammond dentists have contributed the joint sum of $50.00: J. W. Acton, S. A. Bell, E. A. Bock, J. R. Brown, F. W. Carter, H. W. Cawley, W. H. Davis, H. E. Ferenbacher, E. A. Frantz, R. R. Gillis, A. L. Hickman, R. F. Holley, M. H. Iddings, M. Kelley, A. R. McConnell, L. J. Moran, C. F. Morganthaler, W. J. O'Keefe, S. P. Richards, G. L. Smith, M. F. Sullivan, W. E. Spitler, A. J. Warber, L. B. Watson	.....	.....	50.00
MINNESOTA STATE DENTAL SOCIETY			
Dr. E. D. Bettenbaussen, Duluth	.....	.....	15.00
NEW YORK STATE DENTAL SOCIETY			
First District Dental Society, New York	.....	500.00	.....
Dr. Philip Nemoff, West New York, N. J	.....	5.00	.....
			505.00
NORTH CAROLINA STATE DENTAL SOCIETY	.....	.....	300.00
OHIO STATE DENTAL SOCIETY			
Cleveland Dental Society	.....	.....	500.00
TEXAS STATE DENTAL SOCIETY			
Fort Worth Dental Society	.....	.....	50.00
WISCONSIN STATE DENTAL SOCIETY			
Dr. W. L. Dunkirk, Union Grove	.....	.....	5.00
			3,493.50
The following contributions have been paid direct to Dr. Aguilar, Madrid, Spain:			
American Dental Association, Chicago	.....	2,500.00	.....
Dr. Otto U. King, Chicago	.....	104.00	.....
			2,604.00
Grand Total, Nov. 19, 1923			$6,097.50

The following contributions were received by The Dental Digest up to December 12, 1923, and forwarded to Dr. Otto U. King:

Louis A. Burger, Oakland, Calif	$5.10
Burlington (Iowa) Dental Assistants' Society	10.00
Dr. G. W. Clapp, New York	50.00
Dr. C. C. Corbiere, Redding, Calif	10.00
Dr. H. C. Dewey, La Grange, Ill	3.00
Dental Digest, New York	25.00
Dr. A. Ericson, Marquette, Mich	5.00

Dr. C. O. Fergusson, Kulm, N. D.	$5.00
Dr. S. Gettenberg, New York	10.00
Dr. A. T. Harper, Cotton Plant, Ark.	5.00
Dr. G. B. Harvey, Green Bay, Wis.	10.00
Dr. J. A. Heck, St. Louis, Mo.	5.00
Dr. W. A. Kerrison, Wilbur, Wash.	5.00
Dr. H. J. Kraft, Philadelphia, Pa.	5.00
Dr. H. Kull, Oaxaca, Oax., Mexico	5.00
Dr. M. Linn, Brooklyn, N. Y.	5.00
W. K. Lewis, Shorebam-by-Sea, Sussex, England	2.17
Dr. J. H. Nesson, Boston, Mass.	5.00
Dr. J. Reich, Newark, N. J.	5.00
Dr. J. Rosenfeld, Liberty, N. Y.	5.00
Dr. R. A. Sikkink, Waubay, S. D.	1.00
Dr. H. L. Wagner, Altoona, Pa.	5.00
Dr. H. C. Werts, Los Angeles, Calif.	5.00
Dr. J. H. Wipf, Freeman, S. D.	10.00
Dr. G. E. Zinn, Wagoner, Okla.	3.00
Dr. W. I. Zyner, Greenville, Pa.	5.00
	$209.27

DENTAL LAWS

Summary of Dental License Requirements Throughout the World

By Alphonso Irwin, D.D.S., Camden, N. J.

GEORGIA (In Asia)

This independent republic forms part of Asiatic Russia at the present time. Tiflis is the capital. It is doubtful if any dental license regulations are enforced, for obvious reasons. No accurate official information is available upon the subject of the licensing and the practice of dentistry. With an area of 25,760 square miles and a mixed population of 2,372,403 Moslem people, it holds out no attraction for the practical alien dentist trained in the Occident.

HAWAII

Law of 1917, amended 1919. English language, dental supervision, registration and examination are required. The examinations are held in January and July at Honolulu. Fee $20.00. A dental diploma from a recognized dental school is required. Examinations consist of written or theoretical, and practical tests.

The theoretical examinations include subjects usually taught in a standard dental college. Practical demonstrations of the applicant's skill usually include malleted gold foil fillings, root and canal fillings, the cases being selected by the Examiner.

Among the prosthetic tests, an upper and lower denture anatomically articulated and a crown or bridge may be required, according to the discretion and announcements of the Board of Dental Examiners. No interchange of dental licenses.

Annual registration with the Board, January first. Fee $2.00. F. E. Clark, Secretary, 1305 Fort St., Honolulu, Hawaii Islands.

Abstract Regarding Examinations

Any person twenty-one years of age and of good moral character, who has graduated at, and holds a diploma from a reputable college, and who desires to practise dentistry in this Territory, shall file his or her application with and pay to the Secretary of the Board a fee of twenty dollars, which in no case shall be refunded, and present himself or herself for examination at the first meeting of the Board after such

application, and upon passing an examination satisfactory to the Board, his or her name, age, nationality, location and number of years of practice shall be entered in a book kept for that purpose, and a certificate of license to practise shall be issued to such person.

AMENDMENT IN FORCE APRIL 7, 1919

Section 1050. *Violating Provisions. Penalty.* Any person, firm or corporation who shall violate any of the provisions of this chapter, or who shall fail to comply with any of the requirements or provisions of this chapter, penalty for which is not otherwise provided, shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not more than five hundred dollars, and each day's violation or failure to comply with the provisions hereof shall be deemed a separate offense. All tools, implements, medicines and drugs used by any such person, firm or corporation in the practice of Dentistry without a license, shall be seized by the officers of the law, and upon conviction of any such person, firm or corporation of any violation of this act, the hand-tools, implements, medicines and drugs shall be adjudged forfeited and condemned and sold by the Sheriff under the written order of the Court to any person, firm or corporation licensed to practise dentistry, or to deal in dental supplies or drugs, and the proceeds of any such sale shall be paid to the Treasurer of the county or city wherein a conviction is had for the use and benefit of such county or city. This Act takes effect from and after the date of its approval.

I hereby certify that the foregoing bill having been presented to the Governor for his approval and signature, and not having been signed or vetoed within the time prescribed by the Organic Act of this Territory, has become law without his signature on April 7th, 1919.

(Signed) CURTISE P. JANKEA,
Secretary of the Territory of Hawaii.

HEDJAZ

Part of Arabia; famous for being the centre of the Moslem religion; contains the cities of Islam, Medina, and Mecca. The tomb of Mahomet is in Medina, and Mecca is his birthplace. The government of Arabia, Hedjaz included, is under the auspices of Great Britain. The development of this region is under British guidance. It is reported that "no license is required to practise dentistry."

English and American dentists who visit the seaports of Arabia practise their profession in the hotels for a period of from one to two months. As natives do not generally care for dental work, there is no hope of a good business here.

HOLLAND (AMSTERDAM)

There are only four American universities recognized in any way

in this country, and they are the universities of Pennsylvania, Michigan, Vanderbilt and the Chicago College of Dental Surgery. Persons holding dental diplomas from any of them must undergo an examination before being admitted to practice here. Graduates from any other universities or colleges in the United States have to complete the regular dental course in one of the universities of Holland (Utrecht, Leyden, or Gronigen), which course is five years.

The law provides that the examination shall be held in the Dutch language, but in some cases applicants have been allowed to pass the examination in the English or German language.

There is not a good opening in this country for American dentists any more. The profession is now fairly crowded, there being many practitioners with American diplomas.

The latest obtainable official advices from Amsterdam, Netherlands, state that:

"There is no English copy of the Dutch dental laws. Four or five years' study at the Dental College in Utrecht is necessary to qualify one for the examinations held there for the diploma permitting the practice of dentistry in Holland. Admission to the College is conditioned upon graduation from a Dutch gymnasium or high school.

"However, diplomas from such colleges or State universities as you mention admit to the examinations, are always required, though to applicants with these diplomas the examinations would no doubt be easy.

"There are many dentists in Holland, especially in the important cities; but there may be openings for American dentists of superior qualifications, though they would find a very difficult beginning if they had no knowledge of the Dutch language."

Verified June 1, 1923.

HONDURAS (Central American Republic)

Diplomas, Incorporations, Registration*

Art. 323. Persons who have obtained the corresponding titles in other countries, may matriculate into the respective Faculties to exercise their professions. Also recognition can be obtained for studies made in another nation.

Art. 324. Recognition shall be effected by complying with the requisites stipulated for the case, in the treaties which the Republic has, or may have with other nations.

Art. 325. When there are no treaties on incorporation, reciprocity, or on recognition of studies, the party interested should present himself to the Rector and solicit through writing an examination, accompanying his title with documents duly legalized.

*Translation from the Spanish regarding dental licenses.

Art. 326. The application being granted the Rector shall order the necessary examination in the appropriate Faculty, or in the college of advanced studies, according to the grade in question.

Art. 327. The examinations of the articles of incorporation (or the credentials), and the consequent registration of titles, are subject to the rules and conditions prescribed in this Code with respect to scholars of Colleges and Faculties.

NOTE.—In a translation from the Spanish nothing is said officially about the special treaty made between the U. S. A. and certain countries of Central America regarding recognition of diplomas of reputable schools. This will have to be obtained from Washington, D. C. We have been informed that it stipulated that Honduras would recognize diplomas but that they must be registered at the Capitol.

Should any American go to Honduras to practise dentistry, he should first learn from some American dentist in practice there of the possible difficulties he may encounter.

Verified June 8th, 1922.

HONGKONG

An American dentist graduated from a Class A dental College in the U. S. A. and licensed in the State wherein the college is located may be registered in Hongkong. English and other credentials recognized in the United Kingdom may be registered here. See CHINA under the sub-title of HONGKONG for other information regarding the practice of dentistry.

HUNGARY (BUDAPEST)

To practise dentistry in Hungary, a degree of M.D. is required, and, in consequence, a diploma from a dental college is of no value unless the holder happens to have a medical degree also. There is little or no opening in Hungary for an American dentist.

There are several dentists here who have studied in America, but no native American.

ICELAND

This kingdom is united with Denmark and possesses a strange social, political and economic development. Lief Ericson, the Norseman, sailed from Iceland about A.D. 1000, discovered America and founded Vinland, a colony presumed to have been located near New Bedford, Massachusetts. Absolute justice of the sterner sort is said to have been attained by Iceland. Danish ideals, customs and traditions are prevalent. Medico-Dental examinations, license requirements and registration are respected. For other details, address the President of the Council, Siggudor Eggers, Reykjavik, Iceland.

PRACTICAL HINTS

This department is in charge of Dr. V. C. Smedley, 604 California Bldg., Denver, Colo. To avoid unnecessary delay, Hints, Questions and Answers should be sent direct to him.

NOTE—Mention of proprietary articles by name in the text pages of the DENTAL DIGEST is contrary to the policy of the magazine. Contributions containing names of propietary articles will be altered in accordance with this rule. This Department is conducted for readers of the DENTAL DIGEST, and the Editor has no time to answer communications "not for publication." Please enclose stamp if you desire a reply by letter.

POSITIVE BASE PLATE—Paint the model with rubber cement, let stand until sticky, lay over it one thickness of rubber, submerge in plaster and vulcanize. This is probably old, but many are not familiar with it.

R. O. BRITTAIN.

TO KEEP BRASS HUBS OF NEEDLES FROM TURNING GREEN—The most practical way of keeping syringes ready for immediate use is in a germicidal solution. Alcohol, lysol and many of the other compounds cause corrosion of the brass if the nickel is defective. The following solution has been practical, cheap and efficient:

Enough lysol to cover the bottom of a Hood jar or a similar container, a handful of borax and enough water to cover the handles of the syringes. Change the solution every two weeks.

G. E. COX.

HOW TO OVERCOME NAUSEA—At different times you are asked for advice regarding how to overcome nausea in taking impressions for dentures. Aggravated cases such as Dr. C. C. Sprinkler describes and asks advice for are rare in anyone's practice. I have had one in my twenty-one years' practice, and overcame the difficulty in the following manner:

Everything, such as trays, hot water, etc., was made ready for immediate use. Then 1/6 gr. sulphate of morphine was injected in the patient's arm. Eight minutes after the injection of morphine I could place my finger in patient's throat with impunity. The impressions were taken without any trouble.

In August issue of THE DENTAL DIGEST, page 591, Dr. G. A. Lynch asks for a diagnosis for his patient's affliction. The sudden pain and swelling in his patient's lip were in all probability due to a ruptured blood vessel.

T. H. RAGATZ.

Editor Practical Hints:

During the last year I have had a few cases of considerable bleeding after extraction of teeth, and while I have had good success in checking the hemorrhage I would like to know what you consider the best way to treat such conditions. I had a bad case quite recently following the removal of a perfectly healthy and normal lower left third molar. Are infected teeth more liable to cause bleeding than healthy teeth?

E. J. M.

ANSWER—If you have any advance information or suspicion that the patient is a bleeder, have his physician take the coagulation time test and report the results to you. If this is not possible, a rough test may be made by drawing a drop of blood from the lobe of the ear or elsewhere. Normally the drop of blood appearing every thirty seconds will cease after ten or twelve blottings since the normal coagulation time is from two to eight minutes depending on temperature, time of day, surface, etc. If it takes longer than that, give a hypodermic injection of a hemostatic such as thrombo-plastin or hemoplastin. Make another coagulation test in from four to six hours and if satisfactory proceed with the operation. If not, give another injection.

In case the fact that the patient is a bleeder is not discovered until after the extraction, give an immediate injection of the hemostatic and pack the socket with sterilized gauze applying pressure by means of a pad of gauze folded in such a way that pressure will be maintained by the closure of the jaws. In his "American Textbook of Operative Dentistry" Doctor Marcus L. Ward recommends taking a modeling compound impression of the socket and, after it hardens, withdrawing it and coating it with soft plaster of Paris and again inserting it and allowing it to harden. This will completely adapt itself to the socket and block off any vessel. This method is very effective in checking the bleeding, but if some of the hardened plaster becomes dislodged in the socket it may result in disagreeable after soreness.

I do not believe that infected teeth are necessarily more likely than healthy teeth to cause excessive bleeding.—V. C. SMEDLEY.

Editor Practical Hints:

Will you kindly publish treatment and remedies for acute periostitis of the mandible?

R. A. E.

ANSWER—Treatment of Acute Periostitis.—"Brophy."

Apply hot fomentations. When pus is formed it becomes necessary to release it by incising through soft tissues and periosteum down to bone. The hot fomentations can be re-applied until the acute symptoms have subsided. Then dry dressings are used while waiting for the separation of the sequestrum.—GEO. R. WARNER.

Editor Practical Hints:

About ten weeks ago I removed an impacted lower third molar for my wife. I found it necessary to remove considerable of the buccal plate in order to get the roots in their entirety. Nitrous oxide was employed in this case, and when the patient recovered from the anesthetic she had the same sensation that exists when the nerve is blocked on that side. This condition still exists with no appreciable improvement as yet. I cannot believe that I entered the canal as there was no more hemorrhage than from any ordinary operation of this kind. The patient is terribly distressed and extremely fearful that this condition may not become righted in the future. I have had nothing of this sort to contend with before in my practice, and any information you may be able to give me will be very much appreciated.

E. L. C.

ANSWER—I trust that normal sensation is now beginning to return, and that the lady's fears that the distressing condition might not ultimately be righted have abated. I have talked with Doctor Wyman, our exodontist, about the case and he and I agree that in all probability the numbness was caused not by a laceration or severing of the nerve trunk in the canal but by an impingement upon it, occasioned probably by the caving in of a frail wall that separated the canal from one of the molar roots. Usually in these cases of impingement upon or injury to a nerve trunk normal function gradually returns. If the impingement or injury were to the inferior dental nerve the numbness would be apparent in the teeth and lower lip. If the cheek and gums are numb this would indicate that the long buccal nerve had been injured, and if the tongue is numb the difficulty would be with the lingual branch. A very clear x-ray plate might show if there were a bending in of the alveolar wall impinging on the inferior dental nerve. If so, this pressure should be relieved by an operation. If it is the cheek and gums that are numb, probably you severed the long buccal nerve and after a number of months it will undoubtedly recover its normal function.—V. C. SMEDLEY.

Editor Practical Hints:

Will you kindly answer the following questions:

(a) What is a compensating lingual bar, and when is it indicated?

(b) When would you recommend the use of occlusal rests on clasps in a partial plate?

(c) Should every tooth in which a filling is indicated be filled with copper amalgam instead of silver except where the color is objectionable?

(d) What is the best method of treating a putrescent pulp?

J. Z.

ANSWER—(a) A compensating lingual bar is a double bar. A heavy bar rigidly attached to the saddle area on each side and a small round spring gold wire soldered to the clasps and to the center of the rigid lingual bar. This breaks the stress on the abutment teeth and allows for a yielding of the saddle area under masticating stress.

(b) I believe that occlusal rests should be used in partial plates in all cases where the teeth could be brought under occlusal stress; for instance, where saddle areas are small and teeth firm and so situated that they might be used to serve satisfactorily for fixed bridge abutments; in all such cases the stress of mastication should be put on the teeth by the use of occlusal rests, either with or without clasps as the necessities of retention may indicate.

(c) It is my understanding that copper amalgam is not a safe and satisfactory material for general use in filling teeth. While it is desirable for its antiseptic property and is often very durable, in many cases it does not seem to stand up satisfactorily and therefore is not used extensively for fillings in the mouth.

(d) I believe that in the present day and age no putrescent pulp should be treated without x-ray pictures to assist the operator in determining the likelihood of a successful effort and to check up on the root canal technic during the opening up process and after the final filling. Freshly made Dakin's Solution is the safest and most satisfactory antiseptic for treating putrescent root canals. This should be pumped freely with a barb broach or twisted reamer revolved backwards into the canals as they are being reamed out and enlarged. Care should be taken not to penetrate through the apex at this initial opening but after sterilizing and getting out the bulk of putrefaction in the above manner, seal in a cotton dressing saturated with Dakin Solution for a day or two when the cleaning and reaming out process may be completed. When you think you have reached the end of the root, or if an obstruction appears to have been encountered, a check-up x-ray should be taken with a diagnostic wire in place in the canal. When

satisfied that the canal has been thoroughly cleansed of all putrescent matter, the canal should be reamed out and enlarged sufficiently to make it conveniently accessible for canal filling. For this purpose the Callahan method is probably the preferable technic to follow, and after root is finally filled again check with an x-ray to determine accuracy of technic.—V. C. SMEDLEY.

Editor Practical Hints:

Would you kindly inform me what method of procedure should be followed in treating a tooth socket after an extraction which will not heal or fill in with granulation tissue? Would also like to know what is the method you would advise to prevent extraction forceps from sticking? M. M. S.

ANSWER—It is sometimes necessary or advisable to anesthetize the area and freshen the socket by cutting the dead or inactive bone back to healthy normal bone cells. Wash the debris out of the socket and allow it to fill up with a fresh, clean blood clot. In other cases keeping the socket packed loosely with iodoform gauze, removing and replacing same every day or two, thus keeping food and infection out until Nature produces normal granulation tissue is the correct procedure.

I would advise a drop of oil occasionally to prevent extraction forceps from sticking. A recent correspondent states that Lysol is wonderfully effective for this purpose.—V. C. SMEDLEY.

Editor Practical Hints:

Kindly give me information in this picture.

Molar tooth seems sound, yet the picture shows trouble. Never been filled. Second bicuspid never removed. Patient was sick for about one year. Now fairly well. E. C. LLOYD.

ANSWER.—An examination of the radiogram enclosed in your letter discloses an incompletely filled canal in the second bicuspid, a destruction of the alveolar crest between the second bicuspid and first molar to nearly one-half the length of the bicuspid root; a pericementitis of the mesial buccal root of the first molar; a pericementitis of the mesial buccal root of the second molar. There is no definition of the apices of the roots of the second and third molars, there is a radiolucent area around the first molar, which does not appear to be pathological.

It would be my advice to have one or two more exposures made of the first molar at different angles, to give a good diagnosis.

—GEO. R. WARNER.

CORRESPONDENCE

Editor, DENTAL DIGEST:

I am sending first and second lower left molars with united roots and am of the opinion this was caused after devitalization from inflammation and cementation as shown by malformations on other roots.

The mesial root of first molar is cemented to the rest of the tooth in approximate position, broken off in extraction.

E. O. SARBER.

Editor, DENTAL DIGEST:

About a month ago I had a case where a little girl fourteen years old had separated the two lower centrals by constantly sticking a pencil between the teeth.

Upon request I put foil in them, filling the right one first to take advantage of the access afforded, the left being slightly larger, deeper and more accessible. The parents were pleased with this piece of work, it being small, neat and not conspicuous.

At a second sitting, I endeavored to put foil in the left central. Due to the condition of the tooth, I did not dare go deep enough to get the perfect retention necessary, and consequently I attempted to fill it at least six times but without success. In my desperation an idea came to me. It was original, so far as I am concerned, but so simple that it must be common knowledge or impractical.

I mixed a small quantity of one of the best copper cements and carefully covered the inside of the cavity, keeping well away from the margins. The layer of cement was very thin.

I then placed several pieces of foil covering the cement and carefully condensed them. From this point it was simple and quick work. I was able to condense the gold very thoroughly and in the finished filling I had perfect margins.

The parents were pleased with the twin fillings and I felt I had done a good piece of work. The cement acted in the capacity of lining although there was no near-exposure. The finished margins of gold and enamel were water-tight, impervious to moisture. The cement could not get out or dissolve, therefore the filling should be just as permanent and serviceable as the best of foils and more so than any inlay.

Please tell me if I reasoned correctly. I am a recent arrival in the field and always eager to learn.

E. E. M.

Los Angeles, Cal.

Editor, DENTAL DIGEST:

I notice a radiogram of M. F. Henle, under correspondence of the November number of the Digest, and would say the spot in the bone is a metal filling that fell from the extracted tooth into the alveolus during extraction, and the process healed around it. Have seen the same results before.

H. C. WERTS.

Denver, Colo.

Editor, DENTAL DIGEST:

In relation to the query from M. F. Henle in the November Dental Digest:

"The peculiar condition" most evidently are pieces of metal, and in all probability the metal is amalgam.

"It is a very common thing to find pieces of amalgam in sockets of extracted teeth. Pieces of amalgam fillings in the tooth which is extracted drop back into the socket, or pieces of filling from operations while the socket is still open often get into the socket and become encysted."

GEO. R. WARNER.

DENTAL ECONOMICS

Salesmanship in Dentistry

By Irving W. Margulies, D.D.S., New York, N. Y.

This title will immediately suggest to a great many men that we are endeavoring to bring an honorable profession on a par with ordinary business or mercantile establishments, by discussing salesmanship.

I am merely going to show you how important salesmanship is, especially in furthering our success in dentistry.

Selling dentistry is similar to selling any article of merchandise. The buyer is first taken in by the personality of the salesman, then by his wares (sometimes he is taken unawares).

In dentistry we have a line to show our buyers just as in business, but the trouble with us dentists is that we sell our products without showing the buyer any sample; naturally, he is not enthusiastic or keen about paying for something that he has not seen.

Examination of Patients

Let us go into detail. A patient comes into an office. The usual procedure is a hasty examination with an explorer, jotting down of the number of cavities, and an estimate given in a few minutes. Result: patient says either "Yes" or "No," but has no conception of what he or she is to receive and its commensurate value.

With a patient coming into the office the first procedure should be to spray the mouth with a pleasant mouth wash, thus making him feel at ease and putting him in a pleasant frame of mind. A careful survey of the mouth should then be made with explorers, and the cavities marked. The teeth should be radiographed in all cases before work is begun. If bridge-work is to be constructed, modeling compound impressions should be taken and study models made. After the above has been done, the patient should then be dismissed and told that at the next sitting a definite idea will be given of the work to be done and an estimate rendered. Thus, at the first sitting we have created an impression with our patient, not frightening him by prices or by actually beginning work.

Before the next sitting an opportunity is given to figure out just what is to be done and how much the cost will be.

Selling the Article

At the second sitting, the patient is shown a few model teeth containing silver fillings and gold inlays and told that either can be inserted in his teeth, gold being better and its advantages explained.

When we quote a price the patient will still have his breath and say which he desires. Likewise with bridgework, a model of the type to be inserted is shown the patient. If a removable bridge is indicated, a model should be shown and its advantages explained. Then when we quote figures the patient can appreciate its value and will not be astounded at the price asked. The dentist who tells a patient that he needs a removable bridge in his mouth and that it will cost $400.00 or more will invariably hear the patient exclaim, "Why, doctor, that price is terrible!" But put it up to the patient the other way and he can appreciate value by actually seeing the work.

Cleaning teeth is another item that commands a great deal of attention. A person coming in with a great deal of tartar and a gingivitis is told that he needs his teeth cleaned. The dentist then proceeds to remove the tartar and finds out that it has taken an hour or sometimes two sittings to do it. Charge the patient $10.00 and you will have your hands full explaining why cleaning teeth should be more than two or three dollars.

On the other hand, if you explain to the patient at the outset that a scaling and prophylaxis are necessary, together with a treatment of a gingivitis, and that this treatment will take two or three sittings, you will have no trouble in charging and obtaining a relatively decent fee.

Arranging the Terms

Now that we have sold the article the next question to take up is the matter of getting the money for it. In considering this subject we refer to the man who has a general practice and not the advertising man or the specialist.

Before discussing terms with patients ascertain beforehand their financial standing and then charge and arrange terms accordingly. If the patient is on a salary basis, then the best way to handle this type is to ask for a retaining fee, and tell him that we expect to be paid as we go along with the work, the balance to be paid when the work is completed. Nobody will demur upon such terms who honestly wants the work done and intends to pay for it. This method of collecting fees should be applied to all salaried patients and transients. It stands to reason that, being paid each week, a patient will pay his dentist's bill from his earnings. If we let the bill run to the end it means drawing from the bank account, and many have no account. Then the dentist has to wait until the patient scrapes it together somewhere else.

With families of means who are recommended, it is best to send bills monthly for work completed to date and thus avoid delays of two or three months and more in collecting large fees upon completion of an extensive piece of work.

I have never yet seen a patient object or feel slighted upon asking for a retaining fee, and the habit of asking people how they will pay for their work is a bad one. Invariably they say, "Send the bill when finished"—and that means delay and sometimes never seeing your money. *State your own terms at the start,* use your own judgment as to the arrangements and less money will be lost, and both the dentist and patient will be more satisfied in the end. Have you ever noticed how patients will remark after a number of weeks, "My, I have already paid you $60.00 on account! It feels fine." This is much better than sending them a bill for the lump sum at the end and waiting months to collect it.

Finally let me finish with the words:

Be ethical in your profession. Use astute business sense in your practice. Combine both and success is yours.

782 West End Avenue.

A New Year's Resolution

To save a definite portion of your income systematically throughout the coming year. This is the season taken by business men to review the past and plan for the future. The personal income can and should be placed on a business basis, one portion used toward building up an investment fund to provide for later life, a steady income. Pay over this amount monthly into your reserve, as a fixed charge. Success depends largely on the method used in setting aside funds. When saving is a "hit or miss" affair, the amount which goes to the investment fund is surplus after expenditures for current necessities and luxuries. This may be large one month, small another, and many times *nothing at all.* The only businesslike and successful method is to decide on a definite percentage of income and treat this as a bill to be paid.

This may perhaps be more difficult where, instead of a business plant, personal service enters. Yet for physician, dentist, lawyer, engineer, broker, insurance agent, salesman, it is of the greatest importance. Here are no factory buildings which have market value, but each is a plant in himself, with length of service clearly limited. The doctor, then, with an income of $15,000 a year must consider his "plant"

capitalized at $250,000 and, if he is to provide for his family on basis of present earnings, must set aside regularly an apportionment of his income which will build up a fund of $250,000.

The budget below will aid in deciding the portion that should be impounded for the investment fund. A saving of $50 a month regularly banked and, as accumulated, invested in conservative bonds will, at the end of twenty years, provide a monthly income of approximately $125; $75 per month in the same period will bring $185 a month; and $100 will provide $250 a month. The bond market, after a twenty-year decline, turned upward in 1920 from the lowest level reached in forty years. This fact makes present investment favorable for the long term.

A Working Plan for Your Money

	ACCUMULATION				LIVING EXPENSES					WELFARE	
Income	%	Insurance	Investment	Speculative Fund	%	Food	Shelter	Clothes	Operating Maintenance	%	Education Recreation
$1,500	5	$50	$25	$ 0	90	$520	$420	$200	$210	5	$75
1,800	6	75	25	0	87	550	480	275	275	7	120
2,000	7½	100	50	0	85	600	480	320	300	7½	150
2,500	10	150	100	0	78	650	540	400	360	12	300
3,000	15	225	225	0	71	700	600	425	400	14	425
3,500	15	250	275	0	71	750	650	525	550	14	500
4,000	15	275	325	0	70	850	720	600	650	15	580
5,000	20	450	550	0	65	875	840	675	860	15	750
7,500	27	600	1,000	400	57	1,200	1,200	800	1,100	16	1,200
*10,000	30	900	1,500	600	54	1,300	1,400	1,000	1,700	16	1,600
*12,500	42	1,000	3,000	1,000	42	1,300	1,400	1,000	1,800	16	2,000
*15,000	47	1,500	4,200	1,400	38	1,400	1,500	1,000	1,800	15	2,200
*20,000	50	1,700	5,000	3,300	35	2,000	1,800	1,200	2,000	15	3,000
*25,000	50	1,800	6,700	4,000	35	2,300	2,200	1,400	2,800	15	3,800
*30,000	50	1,900	7,500	5,600	34	2,500	2,500	1,500	3,500	16	5,000
*40,000	50	2,000	10,000	8,000	30	2,800	3,000	2,000	4,200	20	8,000
*50,000	50	2,500	12,500	10,000	28	3,000	3,600	2,400	5,000	22	11,000

* Net after Federal Income Tax.

Insurance—calculated on maximum death benefit, i.e. ordinary life.
Investment—funds placed, on security, for income primarily.
Speculative Fund—employed primarily for profit by the "long swing" method.
Shelter—rent or taxes, interest, repairs, and upkeep.
Welfare—medical care, education, vacation, amusements, automobile, donations, and incidentals.
Service and house servants, home equipment, and replacements are included in maintenance.

Babson's Bulletin.

DENTAL LABORATORIES

Fundamentals in Cast Clasp Construction

By I. J. Dresch, Toledo, Ohio

EDITOR'S NOTE.—It is a pleasure to be able to transmit to the readers of this magazine an article backed by as much practical experience as this author is known to possess. No introduction to the article could serve better than the following extracts from the letter which accompanied it.

"You may possibly think I have covered too much territory in these paragraphs, or the language is too strong. I would suppose this because you are sort of away from the actual firing line. But, Doctor Clapp, the story is not half told. The cast clasp and its application have suffered from more abuse in practice than any branch of dentistry I have ever had contact with.

"The cast clasp seemingly offered an 'easy' method for attaching prosthetic pieces. Quite naturally the most shiftless were the most eager to use them. And initial success encouraged carelessness. They were pushed commercially by laboratories, for they offered profitable employment; and these laboratories, at least many of them, are still without sufficient knowledge of the work to construct cast clasp restorations correctly. Even our better dental magazines (including the Digest) have shown cuts of clasp bridges as advertisements of superior service, and these same cases shame our knowledge of the work.

"Nearly all our customers are progressive and ethical dentists who will not stoop to inferior service to gain money or prestige. And yet not a week passes but that we must return some poor plaster cast over which a cast clasp restoration is ordered made. Some men make them because they really think they are better, some to eliminate tooth destruction (not so much to save the teeth as to save the pain, in some cases), and others because the term 'removable bridge' will bring a better fee, at less time and expense.

"Some teachers have done much harm by teaching a sloppy, inaccurate technic based in part on fallacy. They do not include occlusion in their work, to speak of, and the student begins to sell his patients glittering gold removables instead of professional services expressed in occlusion, masticating efficiency, and tooth health to the remaining teeth. This has resulted in the poor standing of cast clasp bridges today. Many of the better men are against them for no other reason.

"I quite agree with men like Dr. Stephan that cast clasp bridges

and dentures have been a disgrace to the profession. But it still stands that men like Dr. Nesbett are adding to the laurels of the profession by proper use of the cast clasp. Further, the cast clasp is here to stay, regardless of expert opinion, for the shiftless will use it even if it is proved inefficient. And the better dentists will use it more frequently than they do now when they have learned more about it.

"I sincerely hope that the above paragraphs will convince you of my sincerity in this matter. I do not pretend to be anything but a commercial man, but I have found the rewards of honest endeavor too ample to allow me to change tactics.

"Please excuse this long letter. I am 'het up' on the subject this morning. Just had an argument with a real dentist who just got back from the State Meeting, where, as usual, the cast clasp was sent down to the lowest hell by a man who knows no more about the subject than I do of Einstein's theory. And he sent all the good men home with an incorrect impression and, instead of learning to use a valuable adjunct like the cast clasp, they will discard them. And the other types of dentist don't get to hear these papers; and if they do, it makes little difference."

Hailed on the one hand as a great boon to prosthetic dentistry, and on the other as harmful and a step backward, the cast clasp is the center of much discussion. It is natural for most of us to "ride hobbies" more or less and, in our enthusiasm, to go to extremes. In preparing this material an effort has been made to reach a sane middle ground—to ascertain the weaknesses and limitations of the cast clasp and to harmonize its use and technic accordingly.

The chief complaint against the cast clasp is the ever-present liability of enamel decalcification. Many hundreds of abutments give ample evidence that the above complaint is based upon fact. At the same time, the same evidence shows that it is conservative to say that not more than twenty per cent. of abutments will be subject to decalcification.

The question then arises, is it better to mutilate all abutments and use three-quarter crowns or inlays than to plan on repairing twenty per cent. of abutments by means of shallow fillings? Or again it might be said that a certain percentage of inlay and crown abutments will need repair. It is quite certain that if all the questions were presented to the patient the cast clasp would be the choice, for anyone would rather have decalcified enamel removed and replaced with a shallow filling *at a later date* than to have healthy enamel removed at the outset. And we all feel that our abutments will be among the lucky eighty per cent that are immune from trouble. And to top it off, if someone whispered to the patient that authorities have declared that not more than ten per cent of inlay cavities are properly prepared to avoid future trouble, the cast clasp would stand alone.

Another charge against the cast clasp is that abutments and investing tissues suffer from traumatic occlusion when cast clasps are used in connection with free-end saddles. Proponents of the cast clasp meet this with the charge that any type of crown or inlay attachment, without a stress-breaking connection, must of necessity place leverage in proportion to the retentive effectiveness of the device. Apart from the various stress-breaking devices which remove the objection of leverage, in free-end saddle cases, the burden of guilt for causing traumatic stress is equally divided between the cast clasp and the crown and inlay attachment.

It is also said that cast clasps cause soreness of abutments in saddle bridge cases. This charge is also true, but a free investigation will show that such soreness is the result of improper clasp design and application rather than the use of the cast clasp.

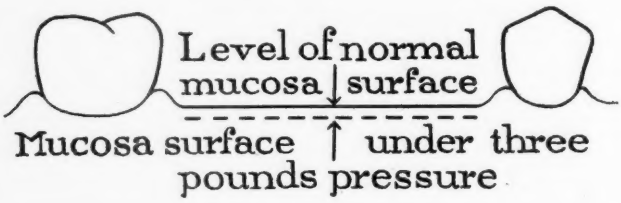
To understand properly the causes for such soreness, it may be well to hark back a few years—to the time when the small mesial and distal inlays were extensively used. In the replacement of the second bicuspid and first molar a small inlay was used in the distal of the first bicuspid and a similar inlay in the mesial of the second molar. In such cases the abutments were often sensitive, frequently the tooth was broken down beneath the inlay, and now and then the inlay itself was broken from the bridge. In those days the inlay had many opponents. Trauma and its effects were unknown, and the inlay was condemned on circumstantial evidence. Some of the former opponents of the inlay are now teaching proper cavity extension and preparation as vital essentials to success in inlay work.

The cast clasp, as it is usually constructed, is similar in effect to the small mesial and distal inlay. While the buccal and lingual wings of the cast clasp afford some support for pressure exerted lingually or buccally, the force of mastication is generally tissue-ward or in line with the long axis of the teeth. This being the case—*and it is the case*—the cast clasp saddle bridge carries the force of mastication to the abutments at a point directly beneath the occlusal rests. The stress of a cast clasp bridge, then, will have the same effect as an inlay bridge when such inlays and the occlusal rests of cast clasps occupy the same tooth area. And by the same token, when a cast clasp has occlusal support which will permit of proper stress distribution, in like manner to the M.O.D. inlay, it will not be a cause for injurious trauma.

But someone says that "the saddle of the cast clasp bridge will give some support, reducing the load on the occlusal rests." A case in point is where a subscriber wrote to his dental journal asking for advice regarding the replacement of several teeth. The span was quite long, and he was advised that it would be best to make a cast clasp bridge

with a gold or vulcanite saddle, thus dividing the stress as between the abutment teeth and the underlying mucosa.

So-called authorities of the subject have been teaching this very thing: the division of stress in cast clasp bridge work. But *is it possible to divide the stress between the comparatively unyielding abutments and the yielding tissue?* We cannot walk on water, for anything that is yielding to the weight placed upon it does not, of course, offer support for that body. Under normal masticating pressure mucosa is yielding and will be compressed from one-quarter to one-half a millimeter. While even healthy abutments have some movement perpendicularly toward the process, the movement is so slight that they may be said to be unyielding in comparison with normal or even "hard" mouths or mucosa.



As the occlusal rests of the cast clasps prevent the clasps from moving toward the cervical line, the cast clasp is stationary during mastication. And as the clasps are rigidly connected with the tooth-carrying saddle, the saddle is also prevented from moving. In other words, there is no change in the relation of saddle to tissue when the normal force of mastication is placed on the cast clasp saddle bridge. The saddle merely has contact with tissue while the jaws are at rest and during function.

This premise being accepted (and facts leave no other choice) and bearing in mind that mucosa must be compressed from one-quarter to one-half a millimeter before it offers a bearing to masticating pressure, *how can the saddle carry any stress to the underlying tissue?* When the abutment teeth are firm and healthy, it is quite obvious that the saddle cannot carry any part of the load to tissue. If, however, when the saddle bridge is made, the relation of the saddle to clasps is so arranged that the saddle will cause a complete and continual compression of mucosa (biting stress relation), so that the tissue offers a bearing for the saddle and resistance to the masticating load, then, and then only, will the saddle carry part of the load to tissue. That is to say, if the saddle completely compresses mucosa while the jaws are at rest, the compressed tissue will offer resistance to force during function.

(*To be continued*)

DENTAL SECRETARIES and ASSISTANTS

Secretaries' Questionnaire

All questions should be addressed to Miss Elsie Pierce, care THE DENTAL DIGEST, 220 West 42nd Street, New York City.

We are indebted to Dr. G. E. Zinn, Wagoner, Oklahoma, for the following formulae:—"Separating Fluid for Plaster Models, commonly known as egg-preserving fluid or liquid glass, chemically known as sodium silicate. It can be bought in pound cans but this I do not like as it is too thick and, while an aqueous solution, it is reduced with difficulty. I prefer to take a large-mouthed bottle to the store and have it filled with egg-preserver. Enough to last six months costs ten or fifteen cents. I spread it lavishly, and then with a cotton sponge wipe it off."

"Investment Mixture. I use a simple mixture of plaster and yellow ochre, about two parts of plaster to one of ochre, or they may be used equal parts, for all work that has to undergo heat. In many years I have never had checked porcelain, observing the position of the porcelain parts to prevent contact with each other. Ochre is kept in all paint and drug stores and costs from three to five cents a pound."

Is it customary for the dental assistant to put on the rubber dam? Also, will you kindly tell me whether assistants are allowed to give the local anesthetic and do the prophylactic work without a dental hygienist's diploma?

L. D. S., Palo Alto, Cal.

Most dental laws assume that no one except licensed dentists shall operate in the mouths of patients. In the states having dental hygienists, duly licensed as such, they are privileged to do the prophylactic work. May I suggest that you familiarize yourself with the dental laws of your State.

I have been employed in a dental office for some time, the doctor practicing general dentistry and orthodontia. We see from seven to ten patients daily and from five to ten children. I get in at 8:30 A. M.

and am busy all day. Can you tell me what pay an assistant should receive doing this work? Some girls claim to be getting from $25.00 to $45.00 a week. Do you think I could do better with a doctor who extracts only? *Constant Reader, Rochester, N. Y.*

Somewhere in a previous questionnaire I have stated that salaries are determined by the willingness of the employer to pay for commensurate service rendered. I know of no professional service governed by an arbitrary wage. The assistant who strives to be efficient and make herself of value to her employer does not have to bargain her efficiency. You do not state the details of your work, so I do not know that changing to the office of an exodontist would benefit you unless you have exceptional service to render in that particular field.

I have been a dental assistant for three years, since graduating from High School, and live in a small town of 1800 or so. When I first began working the doctor had another doctor with him, a young man, but one of the best dentists I know. He knew so much about recent work in dentistry that I learned more from him than from my employer. I was always watching him work and asking questions, so when he left to practice for himself I had learned quite a lot which I put to use.

My employer leaves everything to me as far as laboratory work is concerned; I make all the bridges, using cast backings and baking porcelain tips, and make removable cases. Do all the plate work, full and partial, inlay work, crowns and porcelain jacket crowns. Besides doing the work at the chair I have set inlays, crowns, taken impressions for bridges and cleaned teeth. Also do the janitor work some of the time.

I do not want you to think I am bragging, but you had to know what I could do before you could give me any help. This work is what I would rather do than anything I know of. I love it—which isn't correct, but expresses my feelings! Is there any field open to something else besides always being an assistant? Would it be hard for me to get a position in a city? Would the salary I could expect be enough to cover the added expenses? What salary could I expect? I am getting seventeen dollars a week now. Should I get more? Several times my employer has told different ones that I was worth more to him than a farm and that he was paying me twenty dollars a week but I was worth a hundred. The first part was not the truth but I wonder about the last.

I hope you will answer some of these questions, and also desire to know whether you would advise me to go to dental college.

G., Middle West.

Are there any dentists who care to answer this young woman's letter?

What are the names of the teeth and how are they grouped?

In the permanent set of teeth, thirty-two in all, the names on each jaw are the same, differentiated by upper and lower, right and left. The two teeth immediately in front are called the centrals, next on either side are the laterals, then the cuspids or canines, then the first and second bicuspids or premolars, then the molars, first, second, and third, often called the grinders. The third molar is known as the wisdom tooth.

In group formation the centrals and laterals are known as the incisors; the centrals, laterals and cuspids are known as the six anteriors; the bicuspids and molars are known as the masticating group.

In the temporary set of teeth there are centrals, laterals, cuspids, first and second molars, twenty in all. These are known as deciduous, baby or milk teeth.

November Meeting

EDUCATIONAL AND EFFICIENCY SOCIETY FOR DENTAL ASSISTANTS, FIRST DISTRICT, N. Y., INC.

The November meeting of the Educational and Efficiency Society for Dental Assistants was held on Tuesday evening, November 13th, 1923, at the Academy of Medicine, 17 West 43rd Street, New York City.

Following the regular order of business a very interesting program was presented. Dr. Douglas B. Parker, Assistant Professor of Oral Surgery at Columbia University Dental School, spoke on "The Dental Assistant in Surgical Practice." Dr. Parker gave a general outline of the duties of the assistant in the dental surgeon's office and emphasized that she must have a knowledge of asepsis and thoroughly understand the principles of sterilization as applied to the care of instruments, linens, hands, and all equipment needed in all operations. He advised the use of trays for the instruments rather than placing them in direct contact with the bracket table. These trays, about 5x7, can be placed in the sterilizer and taken out when needed.

Dr. Parker spoke of the cooperation or teamwork necessary in order to make for the successful and smooth running of the practice and the satisfaction of the patient which, of course, is the thing of paramount importance. He stated that the assistant must possess an agreeable personality and that tact and sympathy were much needed. Patients come to the office of a dental surgeon in fear and trembling and must find a pleasant reception and sympathetic service. In closing, Dr.

Parker commended the efforts of the young women present in trying to increase their efficiency through an increased knowledge of their duties and predicted a bright future for them and their Society.

Mrs. Alice Cary Russell, officer in the Woman's Press Club of New York, spoke on "Things I Have Seen." Mrs. Russell gave a very interesting account of personal experiences in foreign lands and spoke of "teeth" as she had seen them in India, China and Japan, in the heads of mummies, idols, etc., as well as among the natives, inlays of gold and precious stones and pieces of metal having been used many centuries ago. She spoke of the curious customs of the aborigines staining their teeth in various colors, black being a great favorite. The Egyptian women chew betel nut to acquire a red stain on their teeth. The Chinese wear removable gold crowns; street peddlers hawk these about and "fit" the prospective buyer, the non-fitting crowns being thrown back among those in stock to be tried on the next customer.

Mrs. Russell stated that the museums throughout the country contain many things dental and one can find much of interest if one will but look for it. Her talk was interspersed with many interesting anecdotes and witty comparisons, such as "Folks said that the man who had no front teeth must be a back-biter!"

Mrs. F. E. Jeffrey, wife of a prominent dental surgeon of Salem, Mass., was a guest of the Society and in a brief address stated that she had come from Salem especially to attend the meeting as she was keenly interested in the efforts of the dental assistants to improve their efficiency through the medium of such organizations, where efforts are being made to further the education of the dental assistant by providing special classes of instruction in their duties, also by the means of lectures and clinics.

In a brief address of welcome the chairman of the evening, in the name of the Society, introduced Dr. Henry Fowler as the First Honorary Member of the Society. Dr. Fowler responded, acknowledging the honor conferred upon him and expressing his gratification at being a member of an organization which was earnestly trying to assist its members to increase their efficiency. Dr. Fowler urged upon the members to take part in the various classes, declaring that by this means only could they accomplish the purpose of the Society. Dr. Fowler is a prominent member of the dental profession, having been President of the New Jersey State Dental Society, one of the Founders and Ex-Chancellor of the American Dental Fraternity, and the active supporter of any movement which has for its purpose better dental service.

The chairmen of the various sections reported as follows:

Gold Inlay Casting. Mary Miller. First demonstration November 9th. Subsequent meetings to be announced.

Office Accounting and Records. Agnes MacNeil. First meeting November 19th.

Sterilization. Frances Gilmore. First clinic and demonstration December 13th.

Speaking and Parliamentary Procedure. Jean Tallaksen. First meeting December 6th.

Porcelain. Catherine Duffy.

Roentgenograms. Emily Campbell.

Office Regeneration. Agnes MacNeil. Dates of meetings to be announced in the near future.

General Laboratory Technique. Ann Marvel. First meeting December 7th.

The above instruction is provided free of charge to the members of the Society.

Agnes MacNeil gave a very interesting report on the convention of the City Federation of Women's Clubs which she attended as a delegate on October 26th.

The Chairman of the Executive Committee, Bertha Ungricht, announced the names of ten dental assistants as having applied for membership. Eight new members were introduced as having been elected.

The Program Committee announced that the program for the December meeting would be given by the members.

Members of the dental profession are cordially invited to attend the meetings of the Society. Their interest is solicited and also that of their assistants. Communications may be addressed to the Secretary, Mae L. Bennett, 104 East 40th Street, or to any of the officers.

EXTRACTIONS

No Literature can have a long continuance if not diversified with humor—ADDISON

A good way to get a million dollars is to save $10 a month for 8,332 years.

"Why don't you take something for that cold, old man?"

"Sir, I'm a law abiding citizen."

(Father—sniffing)—Son, have you been smoking again?

(Son)—No, sir; mother just kissed me as I was coming in here.

Not all of the Chinese bandits are holding up tourists. Some of them are shipping Mah Jongg outfits to America.

Those who yearn for excitement might try walking down a side street with something that resembles a pay satchel.

(Smith)—You seem to have a great deal of faith in your doctor.

(Jones)—Yes; that man holds my thirst in his hands.

If matters progress further along the line they are going, one of these days burglars will be returning fur coats to their victims for alterations.

"How far are we from the next town?" asked the motorist.

"Three tobacco ads and a tire sign," responded the native.

There is one nice thing about hell. One doesn't go to bed at night with the uneasy feeling that the fire will be out next morning.

In an English school the children had been examined, and their eyes tested, according to the education authority's latest decree. Those who were suffering from defects had notes given them to take home. Among the note-bearers was one of the name of Willie Jones, and the note he bore was as follows:

"Dear Sir—I wish to inform you that your son William shows signs of astigmatism, which ought to be attended to at once.—Yours faithfully, J. W., Headmaster." In the afternoon Willie brought this reply: "Dear Sir—I don't know just what it is that Willie's been doing, but I walloped him well this dinner-time, and you can have another go at him if he isn't any better.—Yours truly, William Jones, Sen."

We don't know why there should be so much domestic infelicity. Few modern wives knit ties for their husbands.

It is estimated that a vocabulary of 800 words is sufficient for all purposes except a tire blowout.

A lawyer was putting a witness through a hard cross-examination when the subject of absentmindedness arose.

"What do you think is absentmindedness?" asked the lawyer.

"Well," replied the witness, "if a man who thought he had left his watch at home, took it out of his pocket to see if he had time to go back and get it, I would call him a little absentminded."

(Agent)—Is the lady of the house at home?

(Husband)—What do you want to see her about?

(Agent)—I wish to find out if you want any life insurance.

(New Office Boy)—A man called here to thrash you a few minutes ago.

(Editor)—What did you say to him?

(New Office Boy)—I told him I was sorry you were not in.

Edward Bok tells us in his "A Man from Maine" that Mr. Curtis is a man of few maxims. But one of his few is worth a hundred of the common or garden variety of maxims.

It is simple—just this: *"Yesterday ended last night."*

Which reminds me of the testimony a woman gave at a Christian Science meeting in Brooklyn. Said this woman, "Christian Science has cured me of two terrible diseases—Yesterday and Tomorrow."

Mrs. Overwate had a deadly gleam in her eyes as she entered the butcher's and said in a withering voice:

"Mr. Eichboan, how do you account for the fact that there was a piece of rubber tire in the sausage I bought here yesterday?"

"Ah, my dear madam," responded the butcher, rising to the occasion, "that just serves as an illustration of how the motor car is replacing the horse everywhere nowadays."

DIETETICS and HEALTH

Work a Man Can Do Is an Index of His Health

The question of what constitutes health has been a matter of debate among physicians for a long time. The subject was discussed at the recent meeting of the British Medical Association, and in most of the papers submitted the modern tendency to place performance before mere form was discernible. In other words, what a man can do is a better index to his fitness than what he looks like or what the organs of his body may be supposed to look like, appeared to be the consensus of opinion.

A very different opinion prevailed a few decades ago, at the beginning of the so-called "scientific age" in medicine. Then the stethoscope was the instrument of judgment. If that revealed an abnormal sound the outlook was often regarded as gloomy, no matter what the patient's present capacity might be. Consequently, there were many unfavorable forecasts which were not realized. Their victims outlived or outworked the days of grace allotted to them. That was the period of "medical sentence of death." One hears less today of this calamity.

"What a man can do," however, is no standardized accomplishment. It varies with every individual. It even varies within quite wide limits in the same individual. Thus, at the end of his Summer holidays, many a man can achieve feats of endurance which a month earlier would have been impossible. He has become fitter, but it would not, therefore, be correct to say that when his holiday began he was unfit. He was merely unfit for strenuous exertion—a very different matter.

So long, indeed, as a man is able to carry on from day to day without inconvenience he must be regarded, and is entitled to regard himself, as healthy.

Ill health, on the contrary, reveals itself in a diminution of this "normal, every-day fitness." It may also reveal itself in failure to respond to fresh calls for effort during a holiday, but too much stress cannot be laid on this latter aspect of the case.

Such considerations have led to the modern definition of a fit man as a man capable of adequate response to his usual surroundings and

of adaptability more or less swift, to fresh surroundings. This definition, however, is very far from being complete or even satisfactory.

To begin with, the word "adequate" requires some definition. Irritability of temper, for example, is a sign of inadequate response. So is giddiness; so is exhaustion. Yet every one of these symptoms may be due to causes other than physical. Further, every one may be due to causes which are neither physical nor mental.

Thus, excessive cigarette smoking often produces exhaustion and giddiness, especially during or just after a meal. Worry in business or at home will give rise to the very symptoms. The victims in those cases cannot be described as unfit in a strict sense, yet they are failing to make adequate response to their surroundings. They are fit men living in difficult or impossible circumstances. A far more serious objection to the definition is, however, its failure to take into account the activity of the human spirit.

Every business man knows that strength, as measured in the city, has but a small connection with bodily strength. A man must possess the means of living; but great souls have burned in feeble and broken bodies. They have burned there, too, during long years and in defiance of every known law of medicine. That kind of strength is very much a factor to be reckoned with in estimating a man's fitness or in calculating his chances of becoming fit.

Indeed, the "will to fitness," as every doctor knows, is the next best thing to fitness itself. Almost anything can be done with a man or woman who possesses it. Those who do not possess it are doomed already.

Bodily weakness supported by courage and hope is stronger than bodily vigor unsupported by those moral qualities. When that fact is remembered it becomes more difficult than ever to lay down the law about fitness or to give a complete definition of it. Some men live and work by sheer dogged determination; other men die of the fear of dying, though apparently healthy. The science of keeping fit is thus an art as well as a science. It embraces the whole art of living.

There is great danger in these days of what is called "scientific medicine," that this truth may be overlooked. We are too apt to allow ourselves to be "terrorized by a test tube." The chemist or physicist who has lately invaded the practice of physic is, as a rule, so positive about his results that we take them at his valuation.

Our fathers knew better. They chose as their doctors men of broad sympathy and understanding who never for an instant forgot that they were dealing with men and women and not with machines. These old-time doctors studied mankind as much as medicine. Their results in the matter of treatment were often astonishingly good.

—*New York Times.*

CURRENT LITERATURE

The Whole World Contributes to Our Daily Life

To emphasize the importance of foreign trade in the daily life of every American, the National Foreign Trade Council has just published a study of "Our Imports and Who Use Them."

"The magic of foreign trade, which brings to your doorstep the products of distant lands, is too often overlooked," says O. K. Davis, secretary of the Council, in commenting on this new research. "The dependence of the average American on imported materials is a revelation to those who have never given the matter any thought.

"Taking an ordinary day in your life, the influence of imported materials begins early. As soon as you get up in the morning, the genii of foreign trade begin to minister to your needs and conveniences. The East Indies have contributed their vegetable oils to your bath soap and shaving cream; your sponge is either a plant growth from the tropical waters of the Caribbean, or the modern imitation made of rubber from Sumatra and Brazil. You brush your teeth with fine bristles from the Far East, and smooth your hair with long vigorous bristles from China and England.

"Proceeding to dress, you call upon all parts of the world for your personal adornment. Silk worms in Japan and China may have contributed to your hosiery, shirt, and tie; imported wool enters into much of your outer clothing; your shoes are built up of material of all parts of the globe; your garters and suspenders owe their elasticity to the rubber plantation of Sumatra; while your white linen collar and your linen handkerchief are made of flax from Ireland, Canada, Belgium and the Netherlands.

"Hurrying down to breakfast, you find either coffee from Brazil, tea from the Far East, or cocoa from tropical countries. To sweeten these beverages you use sugar from Cuba and the tropics. Your breakfast china contains English clay, the glasses are wrought from foreign substances, and the knives, forks and spoons may contain imported aluminum and tin. You may start the meal with a banana from Honduras or a grape fruit from Cuba.

"Leaving your house, you walk over asphalt from Trinidad and take a train, the safety of which depends on air-brake hosing made of imported rubber. You may be lightening your travels by walking on rubber heels, and if the day is wet, wearing rubber overshoes and a rain coat. As you look over the morning news, you puff contentedly on a French brier pipe with stem of hard rubber.

"You reach your office and sit down at a desk of mahogany. On the desk are to be found pencils tipped with imported rubber set in a tin holder. The finger grip of your pen is of cork from Spain or of rubber. The telephone and the dictaphone use imported asphalt, carbon, flax, mica, platinum, nickel, rubber, shellac, silk and tin in their construction. The typewriter in the office, and other pieces of office machinery, contain many kinds of alloy steels, often coated with nickel.

"At the end of the day you pick up your hat, which is made either of straw braids from the Far East, or of fur from all parts of the world. Lighting a cigarette of Turkish or Egyptian tobacco, you buy an evening newspaper, made of Canadian wood pulp, and start for home.

"That night, when you sit down for dinner, perhaps at a mahogany table covered with a linen cloth made from imported flax, you will partake of a meal flavored with foreign spices and sweetened with imported sugar; and when that meal is over you will take a Cuban cigar from the humidor on the table. Finally, when the evening draws to a close, you will go to sleep wrapped up in one more product of our import trade—soft linen sheets."

Misleading X-Ray Signs Displayed by Dentists

While passing through some of the business streets of Brooklyn, recently, one of the Department's medical inspectors noticed signs in the windows of certain dental offices which read "X-Ray Diagnosis." Upon investigating three of these (knowing that an application for permit to conduct an x-ray laboratory thereat had not been made) it was found that there was no x-ray apparatus installed in the offices, and that the dentists had no intention of installing any.

The explanation given in each case by the dentist was that he was prepared to make the necessary examination and diagnosis in radiographs submitted, or that he would recommend someone doing x-ray work, if the patient required such, and would then interpret the pictures.

Attention was called to the fact that such forms of advertising were, at least, misleading, and the dentists were urged to remove such signs.

—Reprinted from the Weekly Bulletin of the Department of Health, City of New York.

Camp Roosevelt—Boy Builder

By Major F. L. Beals

Supervisor Physical Education, Chicago Public High Schools

The need for examination and dental care of children has been demonstrated in practically every school system in the United States. Chicago is taking the lead in providing dental inspection and care for school children, under the leadership and auspices of the Chicago Dental Society, which is the first to provide free dental treatment to children. At its clinic, which was formally dedicated on November 21st, 1923, at which time 4,000 of the city's dentists, county officials, and child welfare workers were present, installation has been completed of seven dental service outfits, examination room, surgery room, and x-ray room.

Dr. Dan U. Cameron, of the Public Service Committee of that Society, has been most active in bringing about an excellent dental condition at Chicago's public educational-training summer camp for boys—Camp Roosevelt. The need for help was clearly demonstrated when, in 1919, an examination of the teeth of 500 boys showed an average of four cavities to each mouth. Dr. Cameron got busy, secured the services of a number of dentists for duty at the camp during the entire summer, and their efforts have been unfailing since that time. That they have been productive of good is indicated by the fact that during the season of 1923 the total number of cavities found upon examination of 500 boys amounted to 100.

Dental inspection is but one of the many services supplied to boys who attend this splendid summer camp, which has become national in its scope and patronage. Camp Roosevelt was first conceived to provide recreation and military training, but has since grown into an educational institution of such value that boys come from all parts of the country to earn credits in order to advance in the fall, and at the same time to receive the benefits of the physical and recreational programs.

The lad of ten, too young for the more strenuous program of his older brothers, enters the Junior Camp, where, under the guidance of experts, he spends his time in the woods, building tepee tents and lean-tos, learning the mysteries of woodlore and campfire. The older boy, intent on becoming bronzed and rugged from contact with the outdoor world, enters the R.O.T.C. or military division, where he receives the finest instruction at the hands of officers or non-commissioned officers of the U. S. Army, detailed for this special duty at the camp by the Secretary of War. The summer schools division covers seventh and eighth grade subjects and complete high school courses, and credits earned therein are accepted by educators everywhere, since the school

is commissioned by the Indiana State Board of Public Instruction and operates as a part of the Chicago public summer school system.

Because of its public character, and because it is national in scope, the Red Cross maintains a completely equipped hospital building and staff of four doctors and a nurse, who, in addition to looking after the health and sanitation of the camp, give instruction in first aid, resuscitation and life-saving methods. The Camp Roosevelt Association, composed of public-spirited Chicago men, handles the distribution of all funds contributed toward the support of the camp. The War Department loans complete camping equipment, and the splendid support of these organizations, as well as the Chicago Dental Society, and the Y. M. C. A., which operates a completely equipped "Y" hut, makes possible the conduct of the camp at a low fee for the boy who attends.

Camp Roosevelt is located near LaPorte, on Silver Lake, Indiana, sixty-five miles from Chicago on the New York Central Lines. Its easy accessibility to boys coming from all directions is one of its enjoyable features. To insure the best results in training, the camp is sufficiently far removed from the main thoroughfare to provide absolute privacy, yet near enough to provide for the daily delivery of fresh fruits, vegetables and meats. The many buildings on the grounds were formerly occupied by a boarding school for boys, and are admirably equipped for the convenience and comfort of the campers.

If other communities would follow Chicago's lead in this matter of dental care, it would benefit the health of the nation at large. Progressive cities are already making a thorough study of Chicago's plan, with a view to incorporating it as a part of their educational policy. Full particulars may be obtained at all times from the Chicago headquarters, Room 503, 460 South State Street.

Two Ideas

There are two ideas that have been pestering me. One of them is how the world is but a reflection of our own spirit. The other is how much of our life is pure imitation.

We are very apt to judge the world by ourselves. For mankind is the great mirror in which the soul of the individual sees itself.

I am very shy of generalizations. When a man says everybody does so and so, everybody is like that, or everybody feels so, I suspect that he is talking about himself.

In fact there are as many worlds as there are people to look at the world. The sun is smiling, the tom-tits are merrily cheeping, the peacock is preening, and all Nature is joyous to the young fellow in love; while to the miserable man with a grouch the landscape is but a collection of hearse-plumes.

"Facts are nothing," said Jean Moreau, "but the ideas they signify, the analogies they invoke, are everything."

If you are a decent kind of a person you can go through the world and find it a very decent kind of place.

"There is in all societies," says Alexander Dumas, "a certain proportion of honest folks. Thus. taking the two of us here, there is at least one honest man."

The other idea is that of imitation.

Doubtless I am imitating somebody in all I do. But why mind? In every thought I think I am possibly rehashing some thought I got from someone else. They say our dreams are but a rearrangement of impressions received in our waking moments.

Every word I used has been used before. "I have a book at home with every word of your sermon in it," said a man once to the preacher after the service. The parson hotly denied it. "Oh, yes," said the man, who was disposed to be funny; "it's in the dictionary."

When I smile, that is my grandfather, and when I scratch my chin, that is my great-grandfather. Doubtless I chew my food like any number of people—among them Mr. Fletcher, let us hope.

When I say this you are reminded of somebody, and when I say that it recalls what somebody else said.

If anyone had to do nothing but what is entirely original he would certainly die, for he could neither go to bed nor get up, eat or drink.

Let us be thankful if we each have a little flavor that is our own.

"It is imitating somebody to plant cabbages," said Alfred de Musset.

—Dr. Frank Crane.

FUTURE EVENTS

The department of Post Graduate Instruction of the NEW YORK STOMATOLOGICAL SOCIETY announces a course of six lectures with illustrations and demonstrations on "DIETETICS AND ITS APPLICATION TO CLINICAL STOMATOLOGY." The following subjects will be covered:

1. Malnutrition and Oral Disease, by Alfred Asgis, D.D.S.
2. Physiology of Nutrition, by Holmes C. Jackson, Ph.D., Professor of Physiology, University and Bellevue Hospital Medical School, N. Y. University.
3. Diet in Health, by Robert H. Rose, M.D.
4. Diet in Disease, by Robert H. Rose, M.D.
5. Reform Diet, by George H. Bell, M.D., F.A.C.S.
6. Dietetics as Applied to the Practice of Clinical Stomatology, by Robert H. Rose, M.D.

The next monthly meeting will be held January 28th, 1924, at 2:00 P. M.

Dr. J. C. Ruggier will give a clinic and present a paper on "Principles of Anesthesia."

The other meetings will be held every two weeks.

ALFRED ASGIS, D.D.S., *President.*
STANLEY SLOCUM, D.D.S., *Secretary.*
597 Fifth Ave., New York City.

The twenty-third annual meeting of the AMERICAN SOCIETY OF ORTHODONTISTS will be held in the Hotel Muehlebach, Kansas City, Mo., on March 18, 19, 20 and 21, 1924.

WALTER H. ELLIS, *Secretary-Treasurer,*
397 Delaware Ave., Buffalo, N. Y.

NOTICE—In order not to conflict with the meeting of the American Society of Orthodontists which meets in Kansas City, Mo., March 18, 19, 20 and 21, 1924, the annual meeting of the NEW YORK SOCIETY OF ORTHODONTISTS has been advanced two weeks and will be held Wednesday afternoon and evening, February 27, 1924, at the Hotel Vanderbilt, Park Avenue and 34th Street, New York City.

WILLIAM C. FISHER, *Secretary.*
501 Fifth Ave., New York, N. Y.

The 41st annual meeting of the MINNESOTA STATE DENTAL ASSOCIATION will be held at the St. Paul Auditorium, St. Paul, Minnesota, on February 12, 13, 14, 15, 1924.

C. H. TURNQUIST, *Secretary.*